THE MEDICAL JOURNAL OF AUSTRALIA

VOL. I.—47TH YEAR SYDNEY, SATURDAY, MARCH 26, 1960 No. 13

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The Beattie-Smith Lectures.[1]

(UNIVERSITY OF MELBOURNE).

By W. H. TRETHOWAN,

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LECTURE II: PSYCHIATRY AND THE MEDICAL CURRICULUM.

PSYCHIATRIC TEACHING in Australian medical schools can be viewed in proper perspective only if it is compared with current practices elsewhere. Accordingly, I propose to discuss the results of a survey, recently carried out, of the psychiatric teaching programmes of a number of medical schools in the British Commonwealth and the United States of America. Information was obtained from the answers to a *questionnaire* sent to all medical schools in the United Kingdom, South Africa and Australasia, and to a selection of those in the United States and Canada. Altogether replies were received from 44 (79%) of the 56 medical schools approached. For the purpose of comparison, some of the information obtained is presented in the form of statistical tables.

In considering the number of teaching hours, it may be seen (Table I) that the time spent by students receiving instruction in psychiatry and allied subjects is, in the United States, far in excess of that spent elsewhere, with the exception of Canada, which runs a fairly close second. It may be noted that one American medical school (Duke University, North Carolina) allows no less that 600 hours for the teaching of psychiatry and allied subjects. Excluding this example, the average time devoted to psychiatric instruction at the other U.S. schools included in this survey is approximately 280 hours.

On the purely physical side, American medicine is not to be despised. If, therefore, their medical schools choose to treat psychological medicine as a serious and important part of the curriculum, close consideration should be given to their reasons for doing so.

Tables I and II clearly reveal not only that six times as many hours are given over to psychiatric teaching in America as in Australasia, and over five times as much during the clinical period, but that in both these respects we are at the bottom of the list, the average number of teaching hours devoted to the subject being less in this country than in any of the others covered by the survey. Though this is undoubtedly correct, it should be observed, in passing, that the number of hours devoted to psychiatric teaching varies very considerably from one school to another. This is particularly true of the London medical schools.

Table II also gives some indication how the time spent in teaching is divided. It may be observed that, during the clinical period, American medical schools spend a very much smaller proportion of their total available time in didactic theoretical teaching and, conversely, very

[1] Delivered at Melbourne on October 5 and 8, 1959.

much more in actual clinical work. In Australasia, it is precisely the reverse. This may well be related to existing student-staff ratios, for when there are large numbers of students to be taught and only a small number of teachers available, individual teaching or the instruction of small groups must necessarily be limited, and teaching by means of lectures and demonstrations more widely employed. Thus it is no surprise to discover that the number of staff members of psychiatric departments in American medical schools is, in most instances, very large.

In considering the preclinical period, it may appear at first sight that the amount of time available for teaching psychology and related subjects in the United States does not much exceed that in Australasia. However, the figures, being expressed as percentages, must be considered in relation to the total number of hours spent in all forms of teaching.

Owing to the different lay-out of courses in United States and Canadian medical schools, comparison with other British Commonwealth schools is difficult. In the latter, the amount of teaching given in the preclinical years, while variable, is not often extensive. In most cases this amounts to a short course of lectures (four to 12 hours) in normal psychology or physiological aspects of psychology. Some schools, for example, the Universities of Edinburgh, Aberdeen, Witwatersrand and Natal, give considerably more than this, while six schools give no instruction whatsoever during the preclinical period. In four other London medical schools there is no preclinical course, though some students coming from elsewhere may have already received some instruction in psychology. In contrast, the usual procedure in most American and Canadian schools is to give fairly extensive courses in personality development, psychodynamics, etc., during the first or second premedical years. The University of Toronto, for example, gives three hours of psychology and three hours of anthropology per week during the second preclinical year.

Table III is concerned with the clinical years, in which teaching in psychiatry is given. Once again some variation is apparent, though the tendency is for teaching to be spread fairly evenly over all clinical years in United States and Canadian medical schools, whereas in other Commonwealth medical schools the more usual practice is to concentrate this in a single year, most commonly the fifth. It may be concluded from this that there is in North America a greater tendency towards interdisciplinary teaching, with a closer integration of psychiatry with other branches of medicine. Examination of the details of curricula of American medical schools leaves no doubt that this is so.

Table IV reveals the views of the various schools on the adequacy of their existing teaching programmes. It is only fair to say that, by and large, these are those of the psychiatric teachers themselves, not of the medical schools as a whole, though in some instances it is apparent that these views are shared. What is, perhaps, of particular interest is not that so few of the Australian or British university psychiatric teachers are satisfied with their programme—the majority far from it—but that no less than three of nine American and two of six Canadian schools felt a need to expand their teaching still further.

Table V gives some idea of the kinds of improvement thought to be most urgently needed. It may be noted that the suggestion most frequently made is for more clinical clerking. The amount of time which students spend in this activity varies enormously. Whereas, particularly in some of the London hospitals, ample facilities are available (notably at Guy's Hospital and St. George's Hospital), in many places the opportunity for students to take cases themselves and to study these at first hand is clearly below a desirable limit. Whether this is so or not appears to depend chiefly on whether the teaching hospital or hospitals with which any particular medical school is associated has adequate accommodation for psychiatric patients. In some centres students are able to take cases at nearby mental hospitals, and in a few instances even spend a short period in residence. However, mental hospital teaching does not, as a whole, appear to be greatly favoured. It would seem, therefore, that many share the view that although a medical student should have some knowledge of how a mental hospital functions, and should perhaps learn something of the type of patient who may need to be admitted there, closer study of the grosser forms of mental illness, particularly in their more chronic aspects, is a matter more for the post-graduate than for the undergraduate.

As may be observed, 17 of 29 British Commonwealth schools (excluding those in Canada) feel the need to expand the amount of teaching given in the preclinical period. Several made suggestions of how this should be done, which were more or less in line with the practice largely adopted in the United States and Canada. The suggestion was often made that teaching in other basic sciences should be reduced to make way for more instruction in psychology and related subjects. In seven instances it was specifically recommended that the time spent in studying anatomy should be reduced.

It is, perhaps, surprising to observe that the need for more teaching in child psychiatry was not more often expressed, especially as a distinct impression was gained that facilities for learning about the emotional disorders of childhood were generally somewhat insufficient. However, in several centres this apparent deficiency may be covered by the fact that some teaching in child psychiatery is given as part of a course in pædiatrics, which integration may be considered as right and proper. Similarly, it might be expected that there would have been more recommendations than were actually obtained for closer supervision of students in smaller groups; however, the question was not directly put.

Table VI is concerned with the question of examinations. Once again the practice is very variable. In over half of the Australasian, South African and United Kingdom medical schools, there is no obligatory or separate professional examination, though it is not unusual for an odd question to be asked occasionally as part of the final examinations. As a whole, examination tends to be by written question only, though a few schools hold clinical and oral examinations also. In the United States and Canada, once again, the procedure tends to differ. This is doubtless a reflection of the more extensive nature of the psychiatric curricula in these countries.

The view is not infrequently expressed that, because the average medical student is essentially a practical person, not to examine him in a subject results in his not taking this altogether seriously. While the College of General Practitioners in its report recommended that examination procedures, where these were deficient, be extended, this, although a majority view, is not yet universally accepted. For example, one teacher from a London medical school which does not examine its students in psychiatry at all is of the opinion that merely to make a student know he must "mug up" psychiatry for an examnation is of little, if any, value. There is something to be said for this. However, an intelligent examination, preferably clinical as well as written, and of a type which the student who has done no more than resort to a crammer's handbook cannot easily pass, is clearly of more value. Examinations are more than mere tests of knowledge; in having to formulate his thoughts the candidate may even learn from them. In addition, and as is well known, the questions set or asked tend, especially before the results are known, to be widely discussed among the candidates. In this way some students learn from others. This, however is secondary.

Curran (1955) has expressed the opinion most likely to be shared. He states:

> Examinations are the only effective way to make the average student take a subject seriously, and until compulsory examinations in psychiatry are instituted, I do not think it is likely that psychiatry will take the place it should in the medical curriculum or in the estimation of medical students and doctors.

TABLE I.

Time Spent by Students Receiving Instruction in Psychiatry and Allied Subjects (All Years).[1]

Hours.	United States of America Medical Schools. (9)	Canadian Medical Schools. (6)	London Hospital Medical Schools. (8)	British Universities. (11)	South African Medical Schools. (4)	Australasian Medical Schools. (6)
Over 300	3	1	—	—	—	—
250 to 300	4	1	—	—	—	—
200 to 250	1	—	1	—	—	—
150 to 200	1	3	1	—	—	—
100 to 150	—	—	1	5	1	—
50 to 100	—	—	3	4	3	4
Less than 50	—	—	2	1	—	2
Range (hours)	160 to 600	175 to 270	40 to 245	28 to 135	64 to 120	20 to 90
Approximate average number of hours	300	205	100	85	85	50

[1] One Canadian medical school is omitted on account of insufficient information.

The results of this survey reveal very much more than is contained in the tables. Much of this information cannot, however, be expressed in such an easily digestible form. This is, in part, due to the variability of teaching practices in one school as compared with the next. This not only indicates very considerable differences in the availability of curricular time, accommodation and other teaching facilities, but also reflects a degree of lack of uniformity in the opinion of the teachers themselves. While this need not be stressed, for very many of the recommendations made for improvement are markedly similar in their content, there is still an obvious need for teachers, not only psychiatrists, to get together and examine one another's opinions critically, and in so doing to arrive at some definite conclusions concerning both what is desirable and the direction in which progress may be made.

At this juncture an attempt may be made to find an answer to three questions: What should undergraduate students be taught of psychological medicine? How should they be taught? How much of the medical curriculum should rightly be given over to this subject?

The answer to the last question, the most controversial of all, depends not only on the answers to the first two, but on a consideration of what is practicable as well as what is desirable. Professor Pickering is reported to have said that each teacher feels it is his duty to his subject to demand that sufficient hours and a separate examination be allocated to it, and that this is perfectly valid except for the forgotten fact that the student's capacity to absorb knowledge is limited. Armstrong (1957) states that this is so self-evident that undergraduate teachers in psychiatry have, up to now, been over-diffident in their demands for time. Whether or not this is true, one thing is certain: Australian medical schools as a whole, like some others elsewhere, have so far proved to be quite unrealistic in their efforts to cope with this problem. This is not intended to be a form of censure. Many are now aware of the deficiency and would, perhaps, be prepared to take steps to remedy it if only there were a sufficient number of qualified teachers available. However, these do not, at present, exist.

Given the teachers, if the existing curriculum cannot be extended, if students cannot absorb more than they are at present offered, then the answer is clear: the curriculum should be revised and pruned of all that is either dead wood or of lesser importance to the student who, it should always be borne in mind, will in due course become the medical practitioner of tomorrow. It would be invidious to discuss at this juncture what should be removed to make way for more teaching in psychological medicine. The issue, however, has sooner or later to be faced.

In regard to the question of what should be taught, reference must again first be made to the preclinical period. In dealing with patients who, although they may have diseases, are still human beings, a knowledge of psychology is a necessary pre-requirement; not psychology of the kind taught as part of an arts course, but that mainly directed towards understanding personality and its development and related once again to the other basic medical sciences, notably physiology. Such a course should start in the second preclinical year and continue into the third. The emphasis at this stage should be on the factors governing normal mental mechanisms, and might well include some simple experiments illustrating the kinds of reactions that occur under various circumstances, which students could carry out on one another and in small groups.

Few medical schools outside the United States give much instruction to students on dynamic mental mechanisms, but most tend to keep what little psychological teaching they carry out more or less at a descriptive level. It is extremely doubtful whether the latter is sufficient in itself. There is, however, some measure of disagreement. Curran (1955), who is given to frank expression of his views, has stated that a short course of lectures on mental mechanisms or the dynamic unconscious is harmful insofar as it is not useless. He believes that this kind of instruction only tends to reinforce both,

TABLE II.

Division of Time Spent in Receiving Instruction in Psychiatry and Allied Subjects.

Period when Instruction Given.	Medical Schools.					
	United States of America.	Canadian.	London Hospital.	British Universities	South African.	Australasian.
Pre-clinical period	14%	19%	3%	23%	23%	10%
Clinical period: Lectures, demonstrations, etc.	21%	33%	43%	52%	64%	69%
Clinical clerking and individual tuition	65%	48%	54%	25%	13%	21%
Percentage of total clinical hours devoted to psychiatry (approximately)	5%	3%	2%	1½%	1½%	<1%

a naive view of psychiatry and those commoner misconceptions which the medical student on starting his career shares with the man-in-the-street. His principal criticism of American and Canadian teaching is that in these schools dynamic understanding replaces diagnosis, which has come to be regarded as an old-fashioned relic of the past.

While it may be agreed that a short course of instruction into which, perhaps, too much is crammed may be useless or even harmful, much depends on how these things are taught. Lectures on psychoanalytical theory, clothed in cumbersome terminology, prove indigestible to immature minds and probably have no place in the undergraduate curriculum. Students must, however, have some knowledge of these things, though this has not necessarily to be of a very technical kind. In omission there is a very real risk, either of inducing narrow vision, or of prompting students to obtain information, and possibly distorted information at that, from unauthorized sources. This may lead them towards an unbalanced view.

TABLE III.
Clinical Year(s) in which Teaching in Psychiatry is Given.

Time when Teaching is Given.	Number of Medical Schools.	
Australasian, South African and United Kingdom Medical Schools:		
All clinical years	12	29
Two of three clinical years	13	
One clinical year only	4	
Major part of teaching in fourth year	1	29
Major part of teaching in fifth year	16	
Major part of teaching in sixth year	3	
Major part of teaching spread over two years:		
Fourth and fifth years	2	
Fourth and sixth years	2	
Fifth and sixth years	2	
Major part of teaching spread evenly over fourth, fifth and sixth years	3	
Canadian and United States Medical Schools:		
Spread evenly over all clinical years	13	15
As above, but final year elective	1	
As above, with greater emphasis in third and fourth years (the two final years)	1	

Although some are clearly less convinced of the importance of these things, others believe that it is the duty of a teacher to tell his students something of opposing views, even of those he does not himself share. This applies especially to those matters which, for lack of all the evidence, cannot be settled one way or the other at the present time. It is incumbent, of course, upon no one to teach what he knows to be heresy, though it should be remembered from past experience that the truth has a remarkable habit of changing its appearance from time to time. An awareness of the incompleteness of psychiatric knowledge is a healthy insight and a protection against undue complacency. Furthermore, if a student is properly presented with opposing views or with views which cannot be satisfactorily synthesized, he is, in the light of his own subsequent experience, more able to choose that portion of knowledge which, at a later date, he finds most meaningful and of the greatest practical application.

The best method of teaching dynamic mental mechanisms is a matter which requires further ingestigation. Lectures on the subject, however well delivered, probably do not take the student far along the road to understanding. These are things likely to be fully appreciated only if he becomes aware of them within himself. This at once makes them meaningful and not just abstract theories. Furthermore, lectures and similar forms of didactic instruction have a tendency to foster authoritarianism, which quality has been the subject of discussion by Whitehorn (1955). He points out that the authoritarian leader seeks to develop the skill and knowledge of his disciples in his own likeness, rather than seeking to evoke constructive originality aimed at developing students better than he. This may be more applicable to postgraduates, though it clearly has some application in the sphere of undergraduate education as well. Also, while there is no doubt that the indoctrination of students by a figure of authority brings them some degree of security and freedom from the bewilderment which they may experience in the face of so many unknown or puzzling things, it is questionable whether this type of teaching can properly be considered as education, as opposed to training, which are different things. Furthermore, an authoritarian approach which is difficult to challenge may also be a comfort to the teacher, inasmuch as it allows him to become dogmatic, thereby concealing from himself and others the doubts he may otherwise feel in regard to certain areas of knowledge—those in which there is much that is hypothetical or a matter for conjecture.

In teaching psychological medicine or psychiatry, the need to find a cloak for one's own ignorance is often powerfully felt. This, of course, has to be resisted, though at the same time may be fostered by the demands of students for a definite expression of opinion on some uncertain issue. The answer probably lies in effecting a compromise which, while not settling the issue once and for all, achieves some kind of postponement, either until more is known or until the student is better able to face uncertainty.

At Pennsylvania University students are divided into groups in which they actually experience some of the things they are learning (Peltz *et alii*, 1957). This, it is said, in contrast to a didactic presentation, serves as a personal preparation for overcoming unconscious resistance and gaining insight into psychodynamics and mechanisms of defence. In another, though obviously related, sphere, many have observed with considerable interest a method of group teaching of general practitioners evolved by Balint (1957). Whatever the ultimate value of these methods of teaching, they have the

TABLE IV.
Adequacy of Current Teaching Programmes.

Medical Schools.	Grossly Inadequate.	Inadequate.	Nearly Adequate.	Adequate.	Not Stated.	Total.
Australasian	2	4	—	—	—	6
United Kingdom Universities	2	5	4	—	—	11
London hospitals	1	4	—	3	—	8
South African	1	2	1	—	—	4
Canadian	—	—	2	2	2	6
United States of America	—	—	3	5	1	9
Total	6	15	10	10	3	44

appearance, at the present time, of being particularly well suited to gaining knowledge of psychological mechanisms and seem, therefore, to merit a trial on a very much wider scale, provided that time and, of course, a suitable number of group teachers become available.

Before we leave the subject of psychological and related teaching during the preclinical period, it should be stressed that this is not to be regarded solely as a preparation for learning later about mental disorders, but should be orientated, just as much, if not more, to other parts of the clinical course. Anatomy, it should be remembered, does not relate to surgery alone, while biochemistry and physiology as basic sciences are of importance to clinicians of every kind. Precisely the same is true of psychology, but only if it is correctly taught.

TABLE V.

Suggestions Given by Psychiatric Departments for Improving Their Current Teaching Programmes.

Suggestion.	British Commonwealth Schools.	United States Schools.	Total.
More clinical clerking	19	1	20
Expansion of pre-clinical teaching	17	1	18
Better integration with other medical teaching	8	1	9
More child psychiatry	7	—	7
More clinical seminars	5	—	5
Closer supervision of smaller groups	3	2	5
More lectures	4	—	4
Less lectures	—	1	1
Miscellaneous (unclassified)	9	1	10
No suggestions made	2	3	5

As soon as a student enters upon his clinical studies, it is customary to give him some instruction in the methods of physical examination. At this stage he should also be taught how to carry out an adequate mental examination. Most doctors, other than psychiatrists, have very little knowledge of this relatively simple technique. More important still is the need at this time for the student to learn as much as possible of the doctor-patient relationship, and of the technique of interviewing as apart from the taking of the case history. Adequate preparation during the preclinical period along the lines already indicated should already have given him sufficient insight into interpersonal relationships to facilitate his understanding of just what goes on between two people in the interview situation. Thus he is, or should be, prepared at this juncture to become aware of the pharmacodynamics of that most potent of all medicines—himself.

In Sydney we have, for some time now, been using a method of teaching postgraduate students interview techniques which we believe, and the students themselves believe, is of considerable value. There would seem no good reason why, if the time was available, it could not be adapted to undergraduate medical teaching and prove to have as much, if not more, value. Briefly, the method is this: the students are divided into small groups of eight or ten, and each in turn interviews a patient in the presence of the other members of the group and the teacher. (A one-way screen is used for this purpose, which, although a useful piece of equipment, is probably not a necessity.) At the completion of the interview, for which up to 40 or 50 minutes are allowed, the patient is dismissed and the interview discussed for half an hour or so by the group as a whole. The teacher encourages the observers to participate and, at the end of the discussion, sums up both interview and subsequent discussion and gives his own views. The process is then completed by the student who has carried out the interview listening to a tape-recording made at the time.

Being able to hear oneself interviewing, after a discussion by others who have observed the interview and made appropriate comments, is a salutary experience, and gives one enormous insight into one's own interviewing technique or lack of it. Each student goes through this procedure in turn, though the teacher himself carries out the first interview of all, as is only right and proper. To complete the story, it should be observed that the student doing the interviewing has no previous knowledge of the patient's condition, except for such information as may be contained in the average note a specialist receives from a general practitioner, which, without giving very much detail, hints broadly

TABLE VI.

Examination Procedures.

Medical School.	Number.	
Australasian, South African and United Kingdom Medical Schools		
Single question as part of final year medical examination (in some cases occasional/optional)	10	29
Separate final-year examination (written, clinical and oral)	2	
Separate fifth year examination (usually written, sometimes oral also)	9	
Occasional question in fourth or fifth year examination	2	
Compulsory examination in fourth year with single question in final medical examination also	1	
No examination in psychiatry	5	
Canadian and United States Medical Schools:		
Written and/or clinical and oral examination in two or more years	9	15
As above, with "evaluation" in final year	1	
Final-year examination only	2	
No final-year or other examination[1]	1	
Procedure not stated	2	

[1] At this school (Yale), students take the National Board examination, in which an occasional question in psychiatry is set.

at the main area of the patient's trouble. This method of teaching, as might be expected, considerably raises the anxiety of the students. This, however, is not insuperable, and if made a subject for discussion can be overcome, in addition to providing useful insight.

An attempt, somewhere about this time, if not before, should be made to enhance psychological understanding of the meaning of illness without, necessarily, any direct reference to its nature. An increased awareness of the alteration in behaviour during illness, in the light of the patient's pre-morbid personality, is of essential importance to all physicians. So is an understanding of the significance of the increased dependency of sick persons and their ready tendency towards regression, both of which are strongly fostered by the way in which a general hospital disciplines its patients. This, which should be more closely studied and better understood by students and their teachers, leads unwittingly to the reactivation of childish conflicts, which may be unconsciously played out in relation to members of the medical and nursing staff, and by arousing contrary attitudes in the latter may add to the burden of suffering which the patient necessarily has to bear. In patients suffering from the more chronic kinds of illness, a neglect of these and other vital psychological issues tends to promote invalidism or at least to diminish the results of treatment. This is especially true in the sphere of rehabilitation, where it is found that patients with preexisting unsolved emotional conflicts tend to invest these in some physical disability, which state of affairs, if allowed to continue unchecked, may seriously hamper recovery. All the ingenious measures which the expert in physical rehabilitation may employ to restore to the best possible functioning level the halt, the lame and the blind may fail on this account alone (Trethowan, 1958*b*).

None of these things are easily learned, and certainly they are learned hardly at all in the lecture room. Because both time and continued experience are required in order that they may be well and truly assimilated, this is a good argument for spreading the teaching of psychological medicine as widely as possible throughout the entire medical course. It points also to a need for more and more interdisciplinary investigation and teaching from which the student as observer, and perhaps as participant, can learn.

Consideration may now be given to the matter of teaching students about mental disorders as opposed to the psychological aspects of diseases of other kinds. Although some increase in the time spent is clearly needed, in many centres it is unlikely that there is a need to expand this very greatly. As was previously indicated, the detailed study of chronic mental disorders, particularly the psychoses, and complex psychopathology is properly a matter of post-graduate rather than of undergraduate education. What should be taught is an important question. The answer is bound up with the matter of providing a correct orientation for general practitioners and others towards those patients with psychiatric disorders whom they encounter during their work.

Clearly some fairly detailed teaching of the neuroses is of essential importance, for, as is well known, these are extremely common and are a source of much discomfort, not only to the sufferers, but to their families and friends. The same applies to the simpler kinds of psychosexual abnormality, inasmuch as these are ever simple at all; they too are widespread and a prime cause of marital disharmony. Many neurotic or personality disorders, especially those of milder type, must necessarily be dealt with by the general practitioner. There are not, and never will be, a sufficient number of psychiatrists or psychotherapists to treat these patients. Although long-term psychotherapy, successfully carried out, can do much to ameliorate the symptoms of neurosis, the acquisition of the necessary technique is both difficult and time-consuming. A large number of neurotic patients must, therefore, be treated by what is usually called supportive therapy, the technique of which is much easier to learn. It can usually be adequately carried out by anyone who is sympathetic and, having a sufficient amount of psychological insight, has some understanding of the very real nature of a neurotic patient's difficulties. As was said before, mere common-sense is not enough. Nor is the outdated, but still all too familiar, "pull yourself together" "Dutch-uncle" type of approach. By and large this accomplishes nothing; indeed, it may even make matters worse. With regard to this, an observation by Clark-Kennedy (1950) is of some relevance:

> Psychotherapy demands a natural capacity for sympathetic understanding of another person's problems, which can be bred out of existence by an unbalanced scientific training.

Too ready resort to drugs, either sedatives or tranquillizing drugs of other types, is likewise to be avoided, except in times of crisis. Over-dependence by patients on such pharmacological remedies often proves, when critically viewed, to have an iatrogenic basis.

Bound up with the matter of supportive therapy is the vexed question of giving advice. The undue giving of advice is the hall-mark of inexperience; in fact, it is almost certainly wise to teach students never to give advice, except in a purely technical capacity. It is one thing to tell a patient how to go from A to B; it is another to tell him whether, if he undertakes the journey, this will be in his best interests. When a patient asks for advice on personal and non-technical matters, the correct way to deal with this is to turn the question and in so doing start to learn what lies behind the request. All this boils down to the elementary rule, far too often forgotten, that it is much better to listen and understand than to make a patient hear one's own view on how he should run his life. This, as a general rule, does no more than increase an already existing feeling of inadequacy.

A great many neurotics, particularly those of obsessional disposition, most need a professional friend whom they can visit periodically to talk over their day-to-day difficulties. Although many appear not to improve as a result of this, it is found that they are, none the less, able to carry on with a certain degree of efficiency in work and play. Even if this is all that can be accomplished, it is no mean achievement.

Students also need to be taught how not to identify with their patients and bring their own emotional problems into the doctor-patient relationship. This is difficult, especially for some who seem to do so almost automatically. The only way to avoid this undesirable state of affairs is, of course, for them to gain more insight into their own emotional equipment. Some suggestions have already been made as to how this might be done. Apart from all this a student, and in due course, a general practitioner needs to be taught to be able to recognize when the problem is one too complex to be dealt with only at a fairly superficial level. Under certain circumstances, trying to do more than that for which one is adequately equipped may have as disastrous consequences as a policy of neglect. One further essential piece of learning is required in teaching psychotherapy; this is the recognition of transference reactions, in which a tiro may unwittingly become hopelessly involved.

Apart from learning how to handle neurotics, students need to learn how not to commit certain blunders, some of which are regrettably still widespread. One, which is most important, is a failure to recognize depression, particularly when the manifestations of this condition assume a physical or a neurotic appearance, as is often the case in the early stages. It cannot be over-emphasized that this is a serious disorder which, in view of the risk of suicide, may often have a fatal outcome. Another common blunder is that which is the result of designating a patient's disorder as "functional" by a process of exclusion. It needs repeated stress that hysteria should be diagnosed only on positive grounds. Not only does this condition often have specific physical signs which can be elicited, but its underlying psychopathology is such that it can, if the matter is properly investigated, nearly always be correctly identified. Another important condition which the general practitioner needs to learn to recognize as early as possible in its course is schizophrenia. This, admittedly, is at times very difficult; even experts are prone to make mistakes. None the less, there is in this disorder, as in so many others, a definite relationship between prompt diagnosis and a more favourable outcome. One other kind of patient who deserves close scrutiny is he who comes complaining that he fears or believes that he has some physical condition, usually something sinister or unpleasant, but in whom there is no evidence to confirm this. While in some instances this is no more than a phobia or an obsession, in a proportion it is either a delusion of depressive origin or a manifestation of schizophrenia which implies a more sinister prognosis. The ability to recognize the difference between an obsession and a delusion and how to elicit which is which is a necessary tool of trade.

Already enough has been said to make it clear that psychiatric teaching should be carried out, not didactically for preference, but all the time with the patient as a living example; knowledge of these things is much better gained if students and patients have actual contact. For this reason the provision of adequate time and facilities for clinical clerking is an essential.

Despite all these recommendations and others from many different sources, the existing medico-political climate is such that it cannot be anticipated that any rapid, substantial increase in the time spent in teaching students psychological medicine will occur, however desirable this may appear. The comment has been made on the report by the College of General Practitioners (1958) that for a time yet psychiatrists must depend on taking up their option on students' interest. As more and better psychiatrists are trained to become teachers of their

subject, this will no doubt occur. To a certain extent the matter can be considered as a process of evolution, though one which cannot advance unless kept in an adequate state of nutrition. At the same time, I have little doubt that many, if not all, those changes, the beginnings of which are already in our midst, will come in due course to be regarded as entirely appropriate. If, therefore, you will allow me to go back to the beginning and, in the way which I began, quote from my original source, this time the last two lines instead of the first, I would say in MacHeath's words to those who feel as I do:

> But think of this maxim and put off your sorrow,
> The wretch of to-day may be happy to-morrow.

Acknowledgements.

The 44 universities and medical schools which kindly gave information were as follows: In Australia, the University of Adelaide, the University of Melbourne, the University of Queensland, the University of Sydney, the University of Western Australia; in New Zealand, the University of Otago; in the United Kingdom, the University of Aberdeen, the University of Birmingham, the University of Bristol, the University of Durham, the University of Edinburgh, the University of Glasgow, the University of Liverpool, Victoria University, Manchester, the University of Oxford, the University of Sheffield, the University of Wales, Charing Cross Hospital, Guy's Hospital, King's College Hospital, The London Hospital, St. George's Hospital, St. Mary's Hospital, University College Hospital and Westminster Hospital; in South Africa, the University of Cape Town, the University of Natal, the University of Pretoria and the University of the Witwatersrand; in Canada, the University of Alberta, the University of Manitoba, McGill University, Queen's University, Toronto, the University of Toronto and the University of West Ontario; and in the United States of America, the University of California, Duke University, North Carolina, Harvard University, the University of Kansas, Northwestern University, Illinois, the University of Pennsylvania, the State University of New York, Tufts University, Massachusetts, and Yale University.

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THE ELECTROCARDIOGRAPHIC CHANGES IN MYOCARDIAL INFARCTION.[1]

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THE electrocardiographic changes in myocardial infarction can be divided into those that affect the *QRS* complex, those that affect the *ST* segment and those that affect the *T* waves. These three separate entities are not necessarily simultaneously affected. Very rarely, infarction does not cause electrocardiographic changes, or they are obscured by left bundle branch block or previous infarction. However, I do not propose to deal with this problem.

To go back to fundamentals for a moment, we all know that a resting cell is polarized or charged. When cellular activity takes place the cell is discharged; in other words, the electrical gradient which exists across the membrane of the cell suddenly vanishes as the cell undergoes activity. The ninety or so millivolts potential difference which exists between the inside and the outside of the cell becomes zero. When we look at the heart as a whole and the sum total of all these depolarization processes that take place, we can imagine an electrical force that is generated between depolarized and polarized areas. As the depolarization spreads throughout the heart muscle from instant to instant, there is a definite direction for the summation of all the electrical activity which is taking place in the heart. As this electrical activity has both magnitude and direction, it can be represented by what is known as a vector, and there are literally hundreds of small vectors which can be summated into a single vector for any particular instant in the depolarization process of the heart. If we were to trace out the path of the tip of all these instant-to-instant vectors, we should have what is called the spatial *QRS* loop commencing from the centre of the heart's electrical activity. Such a loop has been recorded on special equipment, and this is known as vectorcardiography. However, using the conventional electrocardiographic leads we have only "snapshots" of this loop taken from different aspects of the body surface. Lead I shows the "shadow" of this loop as it falls upon a line drawn transversely across the body from the right arm to the left arm (Figure I), and similarly lead II is the shadow of the loop cast on a lead running from the right arm to the left leg; again, in Lead III the projection of the same loop is thrown

[1] Based on a paper read at the electrocardiographic week-end course at Sydney Hospital on April 21, 1959.

on to the lead running between the left arm and the left leg. Thus virtually the standard leads give us a picture of the *QRS* loop as it is viewed from the position of electrical shadows cast on three lines, which lie in the one frontal plane, but which are at angles of 60° to each other.

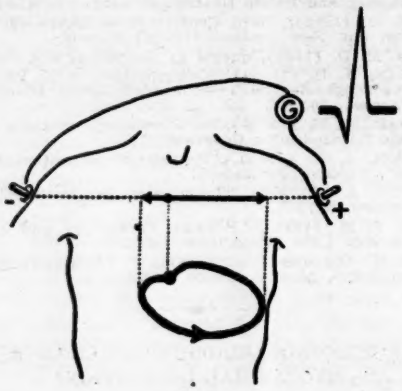

FIGURE I.

Frontal plane projection of the *QRS* loop on to lead I. (By permission, from "Clinical Electrocardiography", by R. P. Grant; copyright, 1957, Blakiston Div., McGraw-Hill Book Co.)

The frontal plane is the plane of the Einthoven triangle (Figure II*a*), which can be represented in another way (Figure II*b*), with all the axes passing through the zero point. I will not discuss the arguments concerning the validity of the heart's being regarded as a single fixed

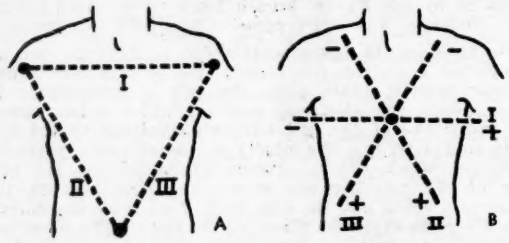

FIGURE II.

(*a*) Equilateral triangle formed by the axes of the three standard limb leads. (*b*) Triaxial reference figure formed by shifting the three axes without changing their direction, so that all three pass through the zero point of the electrical field. (By permission, from "Clinical Electrocardiography", by R. P. Grant; copyright, 1957, Blakiston Div., McGraw-Hill Book Co.)

dipole (Frank *et alii*, 1955), but simply say that the unipolar concept of exploring chest leads entirely reflecting the underlying local activity is no longer valid (Whipple, 1957). All patterns originate in the dipole and differ only because of the different positions from which they are viewed.

Similarly when the conventional chest electrode sites are used, the spatial *QRS* loop again projects electrically on to the leads which surround the chest from the V1 to the V6 position (Figure III). Now a line drawn from the heart's electrical centre to the more distant point of the loop gives a single vector called the mean *QRS* vector. This is a rough average of the direction of all the vectors in the *QRS* cycle, and the direction of the mean *QRS* vector varies at different ages and with different builds. For example, in Figure IV we see the direction of the mean *QRS* vector through the different age groups. This direction roughly coincides with the axis of the ventricular mass in normal persons; but in pathological conditions of the ventricle the electrical axis and the anatomical axis need have no relationship whatsoever. The direction of the frontal plane *QRS* vector gives what is called the axis deviation, and if the *QRS* vector is directed more to the left than 0° we call it left axis deviation, or if it is directed to the right more than 90° from zero, right axis deviation is said to be present.

Once upon a time a good deal of stress was placed upon the value of axis deviation as an indicator of

FIGURE III.

See text. (By permission, from "Clinical Electrocardiography", by R. P. Grant; copyright, 1957, Blakiston Div., McGraw-Hill Book Co.)

disease. This attitude swung sharply out of favour when cardiac rotation "explained" everything; but it has again entered the diagnostic field as having some value, because it is abnormal for a person beyond the age of 50 years to have large right axis deviation, just as it is abnormal for a young person to have marked left axis deviation. It was Ashman who first discussed the spatial vector method, but it was Grant who developed it to make it a very valuable method for the understanding and inter-

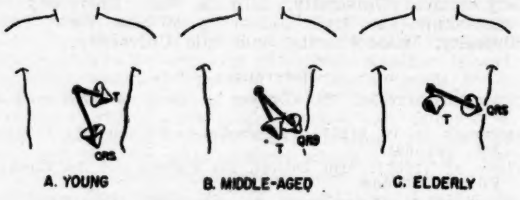

FIGURE IV.

The direction of the main *QRS* and main *T* vectors at different ages. (By permission, from "Clinical Electrocardiography", by R. P. Grant; copyright, 1957, Blakiston Div., McGraw-Hill Book Co.)

pretation of the conventional electrocardiogram. The method is discussed in more detail elsewhere (Grant, 1950*a* and *b* and 1957; Grant and Murray, 1954). Its limitations have been outlined (Freeman, 1960; Langer *et alii*, 1953; Kosman, 1958).

As was indicated previously, the instantaneous vectors throughout the course of the *QRS* loop trace out a loop which is formed by joining the heads of all the instantaneous vectors together. Now if we revert to the instantaneous vectors for a moment, we find that they are continually changing course throughout the *QRS* cycle. At one moment they may be pointing to the right, at the next downward, then to the left and then upward (Figure V). As each vector points in a given direction, electrodes which face the head of the instantaneous vector receive a positive wave. Those which lie on the opposite side of the zero point of the heart's electrical activity record a negative wave. Points which are at right angles to the source of the instantaneous vector have no electrical activity, and accordingly the galvanometer merely records an isoelectric interval. If we examine in Figure V the vector represented at the 0·01 of a second time interval, we see that it is pointing down-

wards and to the right, and that all points on the chest wall below a circle at right angles to the base of the vector will record positivity. All those above the circle will record at the 0·01 second interval a negative trace; thus at point 3 a simultaneous tracing shows a negative wave.

Further on in the heart cycle, the instantaneous vector at the 0·02 second time mark points a little more inferiorly. At the 0·03 second mark the vector has swung downwards, backwards and to the left, and the first electrode position now lies in the zone of negativity. If we examine all the negative points of the chest traced out during the

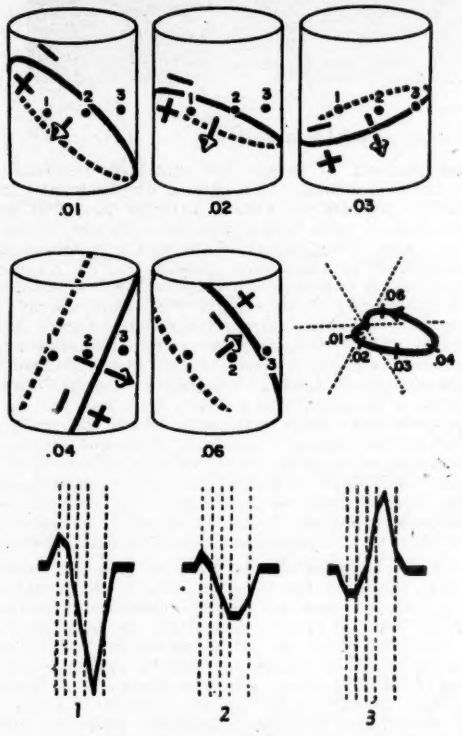

FIGURE V.

See text. (By permission, from "Clinical Electrocardiography", by R. P. Grant; copyright, 1957, Blakiston Div., McGraw-Hill Book Co.)

course of the first 0·04 second, we find a small zone on the chest wall that is consistently negative throughout this period, not having at any stage a vector pointing towards it to give a degree of positivity (Figure VI). Now any electrode in this area will consistently record *Q* waves through the first 0·04 second of the *QRS* cycle, and they differ in no way whatsoever from the *Q* waves of myocardial infarction. Now the only thing which saves clinical electrocardiography from complete chaos with regard to this normal *Q* wave is the fact that in normal subjects this Q area is situated fairly constantly in the right upper part of the anterior chest wall. We now have to examine those circumstances which bring the *Q* wave into those areas where the normal conventional electrocardiogram reveals it.

This brings us to the changes that take place in the *QRS* loop after infarction. I will not deal with the difficult problem of subendocardial infarction, because *Q* waves are uncommon in this condition (Cook *et alii*, 1958). However, I will confine my remarks to what we shall call the transmural infarct, in which a patch of myocardium is dead and cannot contribute electrical activity to the *QRS* loop. This unbalances the loop and causes the sum of the initial vectors to point away from the area of damaged myocardium (Figure VII), so that *Q* waves are recorded in leads facing this aspect of the loop, and *R* waves are recorded from the opposite surface of the body. The diagnosis of infarction can be made just as readily from abnormal *R* waves as from *Q* waves (Figure VIII; see also Levy *et alii*, 1950). The average direction of the

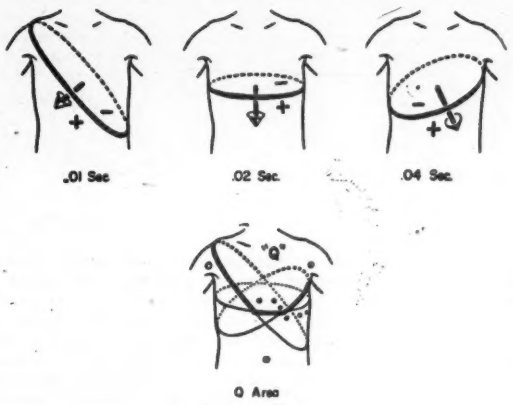

FIGURE VI.

See text. (By permission, from "Clinical Electrocardiography", by R. P. Grant; copyright, 1957, Blakiston Div., McGraw-Hill Book Co.)

normal vector occurring at the 0·04 second time interval extends from a position at right angles to the lead I axis to a position which is at right angles to the lead III axis. It is impossible in this narrow zone for a normal vector at the 0·04 second time interval to project onto the negative side of the lead I axis or the negative side of the

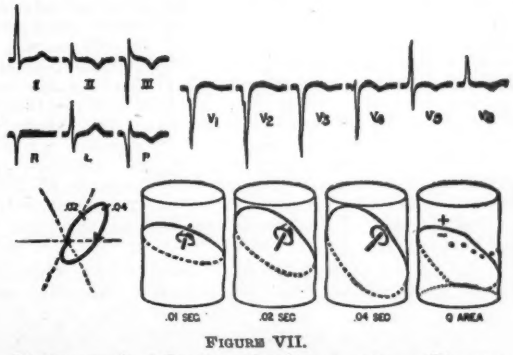

FIGURE VII.

Diaphragmatic infarction showing *Q* area. (By permission, from "Clinical Electrocardiography", by R. P. Grant; copyright, 1957, Blakiston Div., McGraw-Hill Book Co.)

lead III axis. Under certain circumstances the mean *QRS* vector points more to the left than is usual and carries with it the 0·04 second vector, and because of this a *Q* wave can appear in lead III in normal subjects who either have a transverse heart or some condition which produces left axis deviation. However, it is distinctly rare to have a *Q* wave of the duration of 0·04 second in lead I, because it means that the initial vector must have been pointing downwards and to the right, and this is very uncommonly produced purely by a positional change (Figure IX).

In Figure X we see the position of the initial 0·04 second vector when infarction occurs at different anatomical sites in the left ventricle. In cases of diaphragmatic infarction in the area marked as number 1, the early vector will

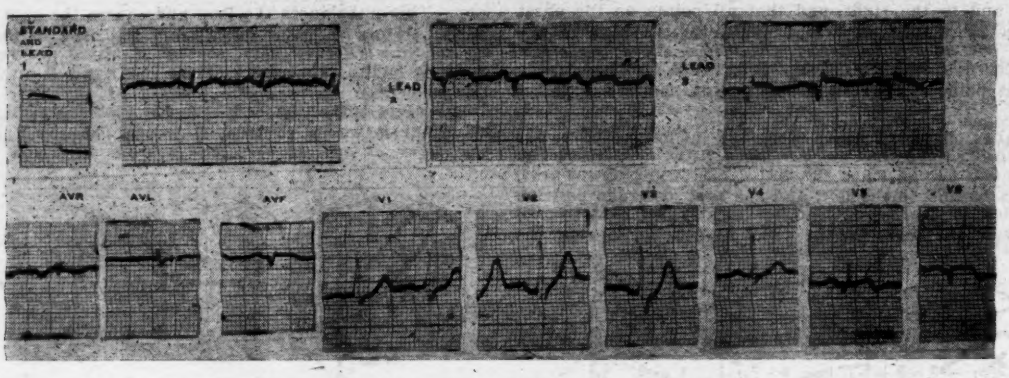

FIGURE VIII.
Abnormal R waves at V1 in a case of postero-lateral infarction.

tend to point in an opposite direction—in other words, high and to the left—and the left arm lead will show *R* waves with upright *T* waves and the left leg *Q* waves with an inverted *T* wave (Figure VII). Conversely, in infarction of an antero-lateral area such as number 2, the early vector points downwards and to the right (Figure XI). And so it is with infarction of different zones of the left ventricle. I may add that this electrical location of infarct does not necessarily coincide with the anatomical location, because if multiple infarcts are present the vector points in the direction of the resultant of the effects of all the infarcts. Furthermore, the extent of the *Q* area is no indication of the extensiveness of the anatomical infarction, as quite large *Q* zones resulting from infarction can lie mainly outside the area covered by the standard precordial sites.

To sum up what I have said so far in terms of "pattern electrocardiography", a *Q* wave on lead III alone may be normal, but when it is accompanied by a *Q* wave of 0·04 second in lead aVF, it is suspicious of diaphragmatic infarction, particularly if they are both present after deep inspiration, and if a *Q* wave of 0·03 to 0·04 second is present in lead II it is fairly diagnostic of diaphragmatic infarction. However, as Oram (1951) has pointed out, disappearance of the *Q* wave in lead III in full inspiration can occur in the presence of infarction. The amplitude of the *Q* wave is not so important as its duration, and for all practical purposes a *Q* wave is not indicative of infarction unless it has a duration of 0·04 second. We have seen that it is unusual to have a normal *Q* wave in lead I and lead II, and their presence is highly suggestive of infarction.

But let us now turn to the chest leads and see when the *Q* area moves down from its normally rightward and upward position to invade the standard electrode sites across the precordium. In a case of diaphragmatic infarction, as is depicted in Figure VII, the first 0·04 second vectors tend to point backwards, upwards and to the left, leaving a zone of negativity in the first 0·04 second period as demarcated in the figure. Leads V1, V2, V3 and V4 all would show *Q* waves of a duration of 0·04 second, and indeed the tracing shows exactly this. Compare this with another case of antero-lateral infarction (Figure XI), in which the initial vectors point away from the affected area and produce a *Q* area of the chest confined to a narrow zone as depicted in this figure. Leads V3 and V4 will show *Q* waves of 0·04 second's duration, but the rest of the precordial leads will not; hence the pattern as depicted in the routine chest leads described above. One can imagine a situation in which the abnormal *Q* zone does not reach down as far as the routine chest positions, and in clinical cases of infarction with normal electrocardiographic findings it is worth while to take leads higher than the standard positions (Freeman, 1960).

I will not exhaust all the sites of possible infarction and their effects on the *QRS* loop, but I will mention one other — that is, cases of strictly posterior infarction in which the loop is directly anteriorly, as in Figure VIII, with the production of tall *R* waves in V1, V2 or V3 (Elek, 1954). The reason for this is evident when one studies the mirror image points in Figure XII. Whenever there is a positive deflection in a given unipolar lead, there should be an equal negative deflection on the opposite side of the body; however, magnitudes differ, because of differences in distances from the heart. This finding of tall *R* waves over the right side of the precordium in high posterior or postero-lateral infarcts is inexplicable on the "electrical window" hypothesis put forward by those who claim that each ventricle transmits

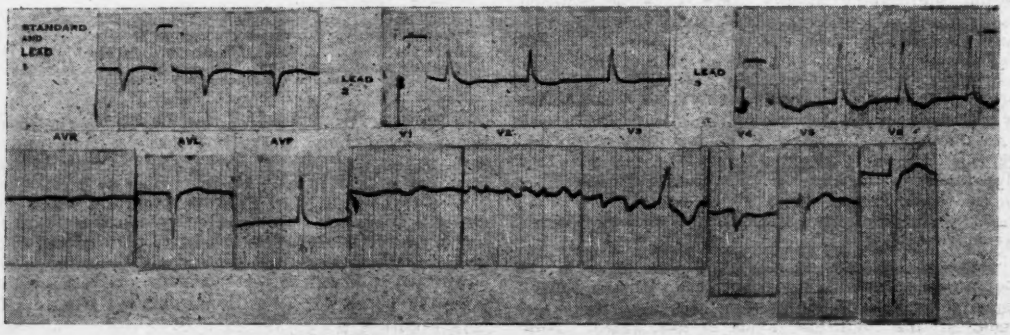

FIGURE IX.
Non-infarction *Q* waves in lead I, due to positional change in a case of severe mitral incompetence with giant left atrium. The heart is vertical.

its own pattern to the overlying electrodes. However, the *phenomenon can be readily understood by the use of the* vector concept.

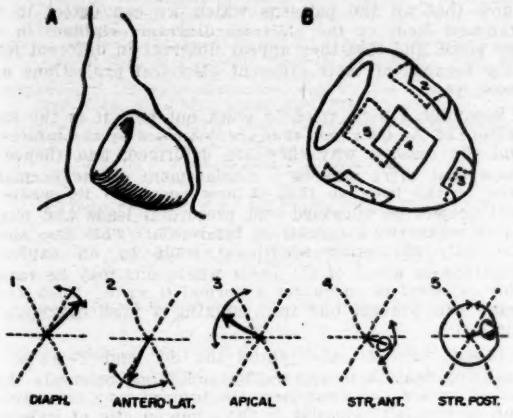

FIGURE X.

Five anatomical sites for infarction illustrating the direction of the early *QRS* vectors. (By permission, from "Clinical Electrocardiography", by R. P. Grant; copyright, 1957, Blakiston Div., McGraw-Hill Book Co.)

Sometimes Q waves are seen both in the precordial leads and in leads III and aVF; this, according to the "pattern" concept (Goldberger, 1949), indicates anterior and posterior infarction. However, such patterns can originate from a single low anterior infarction, in which the early *QRS* vectors point backwards and upwards, producing a *Q* zone anteriorly and inferiorly, and it is easy to understand that the left leg lead and the precordial leads would both show *Q* waves (Figures VII and XIII).

With healing of the infarct the *Q* zone shrinks. Sometimes it goes completely, but more often it remains. In other cases a small *R* wave returns to the precordial leads, replacing the previous *Q* wave.

I shall pass now to *T* wave changes. It is important to realize that the direction of the normal mean *T* vector varies with age. In infancy it points to the left and backward and thus gives negative *T* waves in the V1, V2, V3 position. With increasing age it swings forward and after 30 years is slightly anteriorly directed, and it takes very little further rotation to give negative *T* waves in V5 and V6 (Figure IV).

T wave changes can be of two types. The first type is *due to the delay in the repolarization process consequent* upon some abnormal conduction and configuration of the *QRS*. This is called the secondary type of *T* wave change and may be quite benign. The important one is the primary *T* wave change, which occurs in the absence of *any QRS abnormality and is due to local delay* in repolarization at various points in the cardiac muscle. When there is damage to the myocardium, as by ischæmia which occurs *in the tissues surrounding the infarct*, changes take place in the *T* loop just as they do in the *QRS loop* — the vectors tend to point away from the area of damage — and this means that the *T* vector is more or less parallel to the initial 0·04 second vector of the *QRS*, *so that leads with initial Q waves have negative T waves* and leads with initial *R* waves have upright *T* waves. It is important to remember that *T* wave inversion can be a sign both of transient ischæmia and of subendocardial necrosis, and repeated tracings are necessary to distinguish *between them.*

The third diagnostic feature of the electrocardiogram in infarction is the displacement of the *S-T* segment, the explanation of which is that a current of injury is produced by cells which are damaged to a degree intermediate *between necrosis and the very mildest form of injury* which merely delays repolarization and affects the *T* vector only. The direction of the *S-T* vector is opposite to that of both the early *QRS* and *T* vectors in infarction and points towards the injured tissue; hence the pattern of the *Q wave with an elevated S-T segment and an inverted T* is characteristic of infarction. Some elevation of the *S-T* segment with tall *T* waves occurs in normal people from early repolarization processes affecting not only the *T* wave, but part of the *S-T* segment, and so elevating it. However, an identical pattern is sometimes seen in the very early stages of infarction; this pattern may last for some days, and it requires repeated tracings in the presence of a suggestive clinical story to eliminate completely the possibility of infarction.

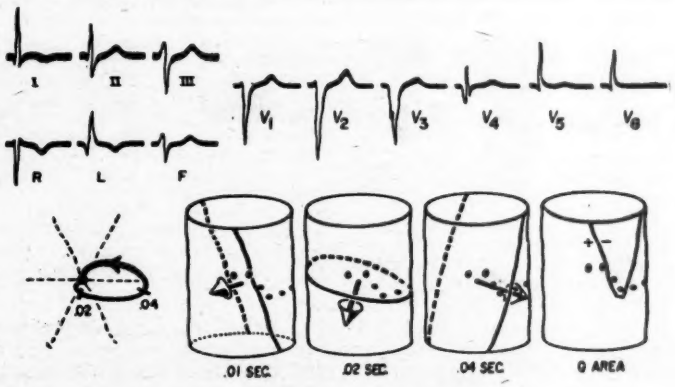

FIGURE XI.

Antero-lateral infarction with a narrow *Q* zone. (By permission, from "Clinical Electrocardiography", by R. P. Grant; copyright, 1957, Blakiston Div., McGraw-Hill Book Co.)

The three components of the electrocardiogram in infarction have been mentioned, and a word must be said about the time sequences of these changes. One early electrocardiographic change that is seen is an elevation of the *S-T* segment with increase in the size of the *T* waves. On the other hand, *T* wave inversion may occur first. Within hours, but possibly only within days, *Q* waves make their appearance. One possible reason for this delay is that anastomotic vessels prevent complete infarction until the thrombotic process extends to include these vessels. As the infarct heals, the current of injury tends to disappear early, and this is followed by a return of the

S-T segment to the base line. The *Q* waves and the inverted *T* wave last longer, and although the *T* waves may remain deeply inverted for some weeks or even

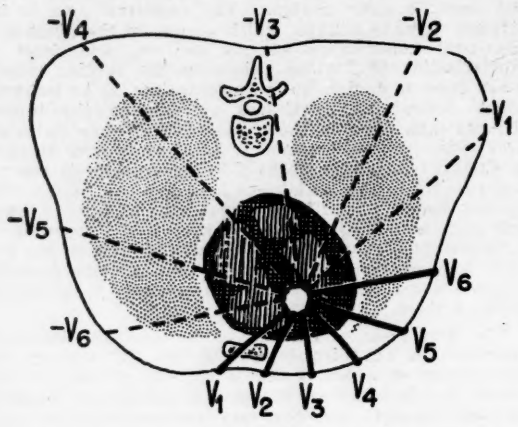

FIGURE XII.

Mirror image points on the chest, showing relative crowding of the positions anteriorly. (By permission, from "Current Concepts in Electrocardiography", by G. Whipple, *Med. clin. N. Amer.*, September, 1957, Saunders, Philadelphia and London.)

months they in many cases either return to small inverted *T* waves or become flat or upright. The patterns I have mentioned above particularly apply to the transmural infarct. In cases in which the infarction is purely subendocardial the *QRS* changes as described above are not present, and instead of an *S-T* elevation, *S-T* depression is present. With regard to the diagnostic reliability of the *S-T* segment and *T* wave changes, we have all noted their variability and the conditions which at any one time may indicate necrosis and at other times ischæmia of muscle. This only highlights the diagnostic value of the *QRS* changes which are pathognomonic of loss of myocardial mass, and the less reliable *S-T* and *T* changes which, as I have said, may or may not be associated with necrosis of muscle. However, when clinical data suggestive of infarction are present and *QRS* changes are absent, serial changes in *T* waves are helpful in the diagnosis of infarction provided that one can exclude the possibility of pericarditis (Wilson, 1944).

To sum up: the prevailing dipolar concept of electrocardiography has replaced the unipolar concept, and in a sense has simplified the whole problem considerably. We no longer have to learn pattern electrocardiography, or strain our credulity over such things as absurd degrees of rotation, or backward tilting of the apex, etc.; but we know that all the patterns which we can detect in the standard leads of the electrocardiogram originate in the one place, and that they appear different in different leads only because of their different electrical projections onto these leads.

Secondly, I have tried to point out how it is the early vectors of the *QRS* loop that are deformed by the infarction and the reasons why they are deformed, and thence to show that there may be a displacement of the normal *Q* area of the body so that it now comes to lie where it will project on standard and precordial leads and enable us to make the diagnosis of infarction. This also shows the folly of taking additional leads by an exploring electrode in areas of the chest where one may be reasonably expected to encounter a normal *Q* wave. Such knowledge will prevent one from making a false diagnosis of infarction.

Lastly, one can understand the *S-T* and *T* waves by realizing that their vectors, by and large, orientate themselves toward and away from the injured zone respectively, and as the left ventricle is the common site of ischæmia, most mean *T* vectors point away from this chamber.

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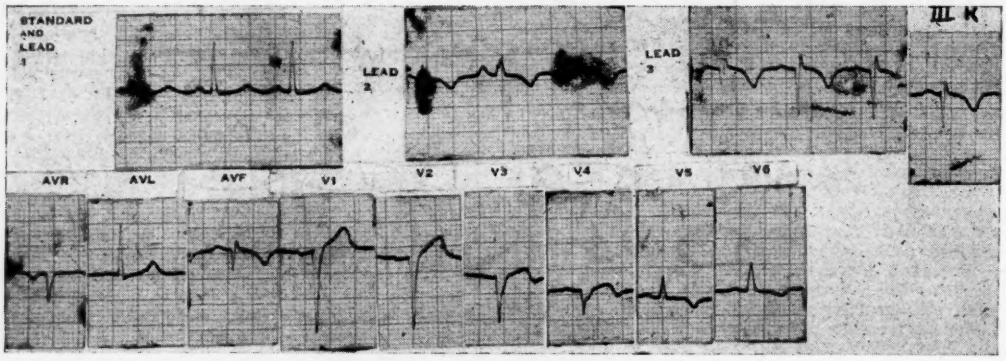

FIGURE XIII.

An old antero-inferior infarction with *Q* waves in the left leg and precordial leads V1 to V4. The *Q* waves in the latter leads are being replaced by tiny *R* waves.

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TREATMENT OF HYPERTENSION WITH COMBINATION OF GANGLION-BLOCKING DRUGS AND CHLOROTHIAZIDE.

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CHLOROTHIAZIDE, introduced into clinical medicine as an effective oral diuretic (Moyer *at alii*, 1957; Ford *et alii*, 1957), was found to have a hypotensive action on patients with high blood pressure (Finnerty *et alii*, 1958; Freis *et alii*, 1958*a*; Hollander and Wilkins, 1957; Wilkins, 1957), particularly when used in conjunction with other hypotensive agents, including ganglion-blocking drugs (Freis and Wilson, 1957; Tapia *et alii*, 1957; Freis *et alii*, 1958*a*). A report from this unit on a short-term study over a period of one month (Barnett and Marshall, 1958) showed that in patients being treated with mecamylamine the addition of chlorothiazide potentiated the hypotensive action of the former drug, so that the dose could be substantially reduced with unimpaired or improved blood pressure control; side effects from the ganglion-blocking drug were reduced, and there were no marked electrolyte disturbances or serious untoward effects over this short period. Since the use of ganglion-blocking drugs is often associated with unpleasant side effects and sometimes with dangerous complications, any additional treatment decreasing the requirements of these drugs would be of great value, provided that the new drug did not introduce other side effects and dangers. The present study concerns the evaluation of chlorothiazide in these respects when used over a period of six months.

Material and Methods.

Twenty-three patients with essential hypertension, who had been treated for at least six months with ganglion-blocking drugs, and in whom a stable dosage had been achieved, were selected for a long-term study of the effect of the addition of chlorothiazide. These were all patients with severe hypertensive disease, as indicated by the initial presence of severe retinopathy, markedly raised diastolic blood pressure and/or disabling symptoms. Although the patients' condition had improved, their treatment was not entirely satisfactory in view of a high dosage of ganglion-blocking drugs, troublesome side effects or (in a few cases) inadequate blood-pressure control.

Ganglion-blocking drugs were taken (or injected) at intervals of eight hours, the actual times being 6 a.m., 2 p.m. and 10 p.m. The patients attended the hypertension clinic between 9 and 10.30 a.m., usually at weekly intervals, but sometimes fortnightly and occasionally monthly. At each attendance the patients were weighed, their urine was tested for the presence of albumin, their blood pressures were measured in the standing, sitting and lying positions, and the dosage of drugs was adjusted as necessary.

Chlorothiazide was administered in a dose of 1 gramme per day—0·5 gramme in the morning and 0·5 gramme at midday. Other anti-hypertensive treatment was continued, and the dose of ganglion-blocking drugs was adjusted as required for optimal effect.

The results were assessed after a period of six months. The blood-pressure levels before treatment with chlorothiazide were taken as the average of those recorded for two months before this was started; the blood pressure levels during treatment were taken as the average of those recorded during the fifth and sixth months of treatment. The average daily dose of ganglion-blocking drugs and the severity of the side effects and symptoms were determined for the same periods.

Plasma levels of sodium, potassium, chloride and bicarbonate were determined before the start of chlorothiazide treatment and after a period of four weeks; in addition, plasma potassium levels were determined every four weeks throughout the study. Potassium salts were not prescribed as a routine measure, but only if the plasma level of potassium fell to 3·5 mEq/l. or below.

In 12 patients, the blood urea level was estimated at the beginning of treatment and after a period of several months.

Results.

Blood Pressure and Dose of Ganglion-Blocking Drugs.

Table I shows the blood pressures and the dose of ganglion-blocking drugs before and during treatment with chlorothiazide and also the values during treatment expressed as a percentage of those before treatment. For convenience, "mean blood pressure" is taken as

$$\frac{\text{systolic} + \text{diastolic}}{2}$$

The general picture for the present six-month study is similar to that for the previous one-month study. In most cases the blood pressure level fell during chlorothiazide treatment, and the requirements of ganglion-blocking drugs also fell (see Figure I). In the series as a whole there was an average reduction of 9% in the "mean" blood pressure (in both the upright and recumbent positions), and an average reduction of 34% in the dose of ganglion-blocking drug.

Sixteen of the 23 patients showed reduction in both the "mean" blood pressure and the dose of ganglion-blocking drugs.

Three patients (S.M., S.C. and S.R.) stopped taking ganglion-blocking drugs because of side effects (severe diarrhœa in S.M., constipation in S.C. and S.R.), and although the blood pressure rose above the level before treatment with chlorothiazide, control remained reasonably good.

Three patients (G.S., Hu.F. and E.L.) showed improved blood pressure control, but the dose of ganglion-blocking drug was increased. In E.L. the fall in blood pressure was considerable and the increase in dose of ganglion-blocking drug only slight. Hu.F. had suffered from a cardiac infarction four months before starting chlorothiazide therapy; this possibly decreased his requirement of ganglion-blocking drugs at the commencement of the trial. G.S. became depressed during the course of the trial and stopped taking reserpine.

In the case of J.F. there was a rise in both blood pressure and in the dose of ganglion-blocking drugs without apparent causative circumstances; this case must therefore be regarded as a treatment failure.

Symptoms and Side Effects.

In general, symptoms prior to the commencement of chlorothiazide therapy were mainly due to side effects of treatment with ganglion-blocking drugs. The change in severity of the side effects after the addition of chlorothiazide is shown in Table II. Dryness of the mouth, nausea and constipation were reduced; faintness and tiredness were increased. The general state of well-being appeared to be improved in eight patients, unchanged in 11 and worse in four.

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TABLE I.

Effect of Blood Pressures and Dose of Ganglion-Blocking Drugs.

Patient.	Age. (Years.)	Sex.	Presence or Absence of Papilledema at Commencement of Treatment with Ganglion-Blocking Drugs.	Duration of Treatment with Ganglion-Blocking Drugs. (Years.)	Drug Treatment Before Treatment with Chlorothiazide.[1]	Blood Pressures.[2]								Dose of Ganglion-Blocking Drugs (Milligrammes per Day).		
						Before Treatment with Chlorothiazide.				During Treatment with Chlorothiazide.				Mean Blood Pressure During Treatment as Percentage of Mean Blood Pressure Before Treatment.		Before Treatment.	During Treatment.	Dose During Treatment as Percentage of Dose Before Treatment.
						Upright.		Recumbent.		Upright.		Recumbent.		Upright.	Recumbent.			
						S/D.	Mean.	S/D.	Mean.	S/D.	Mean.	S/D.	Mean.					
B.C.	43	F.	0	5½	Me, H.	148/99	121	179/106	143	126/85	106	168/93	131	87	91	117	80	26
P.C.	51	F.	0	¼	Me, R.	188/104	146	210/119	165	136/97	117	174/108	141	80	85	55	40	73
S.C.	54	M.	+	¼	Me, H.	176/120	149	197/139	168	126/89	108	148/101	125	72	74	95	15	17
J.D.	41	F.	0	7	Me, R.	139/102	121	155/105	130	156/110	133	150/100	125	110	94	22·5	0	0
S.B.	45	M.	0	5½	P (O), R.	159/112	136	144/117	131	138/96	119	132/88	110	88	83	500	300	60
J.F.	60	F.	0	5	Me, R.	184/102	143	208/118	163	120/74	97	166/95	131	80	80	60	48	80
Hi.F.	49	M.	0	2	Me, R.	168/106	133	188/116	152	173/108	141	191/121	156	106	102	15	26	173
Hu.F.	40	F.	0	7½	P (I).	176/107	142	192/102	147	178/103	141	177/101	139	99	97	44·5	27·5	60
M.H.	37	F.	0	5	P (O).	175/110	143	188/112	150	162/112	137	157/102	130	96	87	140	350	250
W.H.	40	M.	0	2½	P (O).	151/121	136	148/105	127	145/108	127	151/108	133	96	104	320	0	0
V.K.	46	M.	+	7	Me, R.	145/111	128	160/110	135	133/96	115	144/88	121	90	90	32·5	24	74
E.L.	45	M.	0	1	Me, R.	160/106	133	194/120	157	150/95	123	212/121	167	87	106	64	50	78
R.I.	51	M.	+	5	P (O), R.	195/121	158	220/129	175	131/91	111	165/106	136	69	77	50	55	110
F.M.	56	F.	+	6		153/100	127	193/113	153	144/100	122	185/114	150	96	98	1200	700	58
S.M.	48	F.	+	1	Me, R.	193/110	152	220/124	172	181/105	143	193/116	155	94	92	45	30	67
A.McD.	54	M.	0	4½	P (O), R.	148/98	123	192/105	149	176/103	140	180/110	140	114	94	80	0	0
R.N.	54	M.	+	¼	P (I), R.	163/112	138	209/133	171	147/103	125	163/104	134	90	78	420	0	0
E.P.	54	F.	0	¼		138/107	123	203/129	167	130/104	117	205/136	171	95	102	31	24	77
S.R.	45	F.	0	3	Me, R, H.	187/123	155	196/118	157	176/118	147	191/110	151	95	96	75	50	67
E.R.	54	F.	0	5		147/95	121	168/103	136	140/104	127	145/96	121	105	98	52	0	0
G.S.	43	M.	0	4½	Me, R.	189/109	140	228/124	176	161/104	133	193/103	148	89	84	80	65	81
T.S.	38	M.	+	¼	P (O), R.	174/113	144	215/139	174	163/108	131	188/119	154	91	89	465	720	154
			0	¼	P (O), R.	177/110	144	172/101	136	147/91	110	166/95	131	83	96	300	165	55
Average	..	..	..	..	..	..	..	..	..	..	..	..	..	91	91	..	..	66

[1] Me, mecamylamine; H, hydralazine; R, reserpine; P (O), pentolinium taken orally; P (I), pentolinium by injection.

[2] S/D, systolic/diastolic blood pressure in millimetres of mercury; "mean" blood pressure is taken as $\frac{\text{systolic} + \text{diastolic}}{2}$.

Electrolytes.

The plasma electrolyte levels before treatment with chlorothiazide and after treatment for four weeks are shown in Table III.

Only in the case of potassium was there any marked change in the plasma level of the electrolyte. A potassium level of 3·5 mEq/l. was regarded as definitely below the normal range. The plasma potassium level reached this figure in five cases after one month of treatment, in nine cases after two months, in 11 cases after three months, and in 13 cases after six months. Thus, the majority of patients who developed a low plasma potassium level as a result of treatment with chlorothiazide did so in the first three months of treatment, although occasionally this effect did not appear until as late as six months. In eight cases, additional potassium was administered in the form of enteric-coated tablets of potassium chloride (the usual daily dose being four tablets, each of 0·5 gramme). As a result of this treatment, the plasma potassium level occasionally rose, but usually remained steady at the low value. The effect of the administration of potassium in the form and dose adopted was not completely satisfactory.

Blood Urea Level.

The blood urea level was estimated after three months or more of treatment in 12 cases. In 11 the level remained unchanged, in one (patient J.F.) it rose from 60 mg. per 100 ml. before treatment to 95 mg. per 100 ml. after chlorothiazide had been given.

Discussion.

Effectiveness.

The present results are in accord with the short-term (one month) trial of this drug previously reported from this department (Barnett and Marshall, 1958), and are substantially in accord with those of other workers. In general, the effectiveness of the ganglion-blocking drugs as hypotensive agents is enhanced and the requisite dose for satisfactory control of blood pressure is reduced. There appeared to be little difference between pentolinium and mecamylamine in this respect. The incidence and severity of side effects from the use of ganglion-blocking drugs are reduced, although this effect is not so marked as might be hoped. In particular, it was disappointing to find that in three cases it was necessary to stop the administration of mecamylamine because of bowel disturbance.

Mode of Action.

The mode of action of chlorothiazide as a hypotensive agent is still not fully established, and several mechanisms have been postulated: (i) an inhibitory effect on the excretion of other hypotensive drugs; (ii) a hypotensive effect secondary to

the diuretic action; this may be the result simply of decrease in extracellular and plasma volume, or may be due to altered cardio-vascular responsiveness secondary to electrolyte or fluid volume changes; (iii) a direct action on the smooth muscle of blood vessels.

With respect to the suggested inhibitory effect on the excretion of other hypotensive drugs, Harington and Kincaid-Smith (1958) have shown that administration of chlorothiazide causes decreased excretion of mecamylamine attributed to the production of alkaline urine,

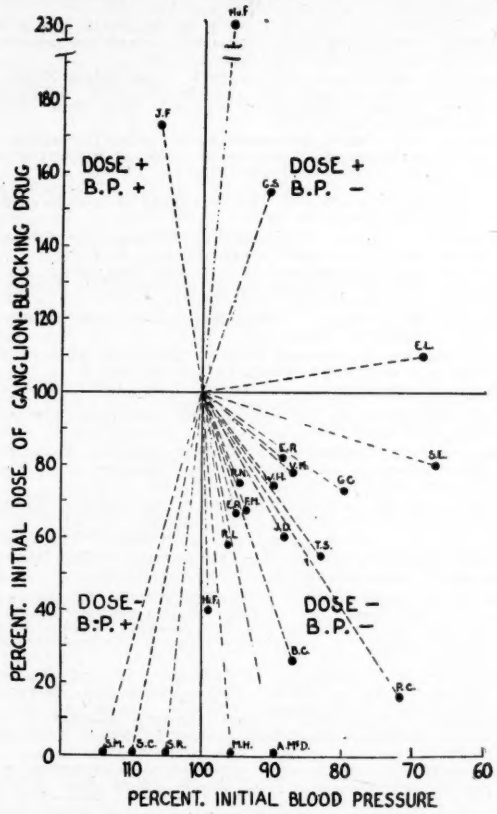

FIGURE I.

Graphic representation of the change in the "mean" blood pressure in the upright position and the corresponding change in the dose of ganglion-blocking drugs during treatment with chlorothiazide. The initial values are shown as 100% in each case (see text).

and this may be partly responsible for the potentiation of the effect of this drug. However, it is not applicable in the case of chlorothiazide used in conjunction with other hypotensive drugs.

The second and most widely accepted explanation of the hypotensive action of chlorothiazide is that it is secondary to its diuretic action and is related to the loss from the body of water and electrolytes, particularly sodium, the effect being comparable to that of a salt-poor diet as used by Kempner (Kempner, 1948; Medical Research Council, 1950).

If the hypotensive effect depends on the diuretic action, it would be expected that a similar hypotensive effect would be produced by other diuretic agents. Wilkins and Hollander (1957) found that various diuretics (other than chlorothiazide) had no consistent hypotensive effect; however, in hypertensive patients with congestive heart failure, these diuretics produced increased responsiveness to other hypotensive drugs. A similar effect was observed (Wilkins *et alii*, 1958) when mercurial diuretics were administered parenterally to patients without congestive heart failure, provided that there was an excretion of water and electrolytes comparable to that produced by chlorothiazide. Rochelle *et alii* (1958) claim that they have shown that the potentiation of anti-hypertensive agents is a property common to all effective diuretic agents, and the degree of this potentiation is a reflection of the diuretic potency. According to these workers, the marked effect of chlorothiazide in potentiating hypotensive drugs is due to its continuing effectiveness as a diuretic agent.

TABLE II.

Side Effect.	Number of Patients.		
	Better.	Unchanged.	Worse.
Faintness	2	2	6
Dryness of the mouth	6	0	3
Nausea and/or vomiting	3	0	0
Constipation	9	2	2
Diarrhœa	1	0	2
Blurred vision	5	0	4
Heartburn	1	0	2
Difficult micturition	2	0	0
Tiredness	1	0	5

Depletion of water and electrolytes may cause lowering of blood pressure or increase in susceptibility to hypotensive drugs by decrease in extracellular and plasma volume resulting in decreased venous return and cardiac output, or it may decrease the responsiveness of vessels to vasoconstrictor influences. A marked reduction in plasma volume was demonstrated by Tapia *et alii* (1957) and by Freis *et alii* (1958*b*), who believed that this probably explained at least in part the enhancement of the antihypertensive activity of other drugs. The hypotensive action of chlorothiazide is partially overcome by repletion with sodium chloride (Tapia *et alii*, 1957; Freis, 1959). Dustan *et alii* (1959) have also observed that after the administration of chlorothiazide there is a decrease in plasma volume; this is accompanied by a decrease in cardiac output, an increase in peripheral resistance and an increased depressor effect of a ganglion-blocking drug. They believe that the decrease in plasma volume leads to an increase in neurogenic vascular tone, explaining the increased effectiveness of drugs which act by blocking the neurogenic vasoconstrictor impulses. Wanko and Freis (1959) have demonstrated that after the administration of chlorothiazide there is a decreased response to an infusion of noradrenaline and an increased response to the depressor action of ganglion-blocking drugs. This "altered vascular responsiveness" reverted to normal with restoration of the plasma volume by the intravenous infusion of dextran.

The third possible cause of the hypotensive effect of chlorothiazide is a direct action on vessels not related to the diuretic action, as suggested by Wilkins *et alii* (1958). Support for this view is given by the observations of Beavers and Blackmore (1958) that in dogs, infusion of chlorothiazide decreases both the pressor response to adrenaline and noradrenaline and also the depressor response to isopropyl-noradrenaline; this occurs with practically no change in the plasma sodium concentration, and the lessened pressor response to noradrenaline is not affected by an infusion of hypertonic saline. Smirk and McQueen (1958) found that in patients in whom the urinary electrolyte loss was made good, chlorothiazide nevertheless markedly enhanced the activity of ganglion-blocking agents in lowering blood pressure.

Although the hypotensive action of chlorothiazide is not yet fully elucidated, most of the observations indicate that it is mainly related to its diuretic action; there is also evidence of a direct action on vessels, and in the case of its use in conjunction with mecamylamine, some

of the effect may be due to decreased excretion of the latter drug.

Dangers.

Workers using chlorothiazide in the treatment of œdema reported occasional instances of electrolyte disturbance, particularly depletion of body potassium (Bayliss *et alii*, 1958; Slater and Nabarro, 1958; Marshall, 1958). Laragh *et alii* (1958) reported a rapid rise in blood urea nitrogen level and oliguria in a patient receiving chlorothiazide for chronic congestive heart failure; but it is very doubtful whether this can be attributed to the drug.

TABLE III.

Electrolyte.	Level: Mean and Range (mEq/l.).	
	Before Treatment.	After Treatment for Four Weeks.
Na^+	142 (134–147)	143 (133–153)
K^+	4·6 (4·0–5·6)	3·9 (3·0–5·1)
Cl^-	104 (99–109)	102 (94–111)
HCO_3^-	26·5 (22– 29)	27·5 (23– 32)

Workers using the drug in the treatment of hypertension have in general not described any deleterious effects. Here the drug is usually used in a lower dose (1·0 gramme per day) than in œdema (2·0 grammes per day). Freis *et alii* (1958) state that some patients experienced nausea and weakness in the first month of treatment; the serum potassium level fell in some patients to 3 mEq/l.

Our experience confirms the general lack of toxicity of chlorothiazide in the treatment of hypertension. However, a moderate reduction in plasma potassium level was very common. A number of patients complained of tiredness which might be related to this cause. It would, therefore, seem advisable to administer a supplemental dose of potassium, or to encourage a diet rich in this element. A rise in blood urea level occurred in one case only, the single case of unexplained non-response to the drug. We do not believe that this is necessarily due to the chlorothiazide, as rapid deterioration in renal function may occur in some hypertensive patients without treatment.

Summary and Conclusion.

1. The effect of chlorothiazide in a dosage of 0·5 gramme twice a day has been studied over a period of six months in a series of 23 patients under treatment for severe hypertension with ganglion-blocking drugs.

2. In general, with the addition of chlorothiazide, it was possible to reduce the dose of ganglion-blocking drug by an average of 34%, and yet to maintain a slightly better control of blood pressure as measured in both the lying and standing positions.

3. The side effects of dry mouth, nausea and constipation occurring from treatment with ganglion-blocking drugs were reduced; faintness and tiredness were increased; diarrhœa was not prevented.

4. The plasma potassium level fell below 3·5 mEq/l. at some period in the six months in 13 of the 23 cases.

5. The hypotensive action of chlorothiazide is discussed.

6. It is concluded that chlorothiazide is a valuable adjunct to ganglion-blocking agents in the treatment of patients with severe hypertension.

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NEW CHLOROTHIAZIDE DERIVATIVES IN THE TREATMENT OF HYPERTENSION AND ŒDEMA.

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THE introduction of chlorothiazide (6-chloro-7-sulphanyl-1,2,4-benzothiadiazine-1,1-dioxide) marked a definite advance in the treatment of hypertension and œdematous states. A great deal of literature (Pitts *et alii*, 1958) confirms its therapeutic effectiveness and its low toxicity. In a remarkably short space of time chlorothiazide has established itself as the most potent and generally useful oral diuretic at present available. In the treatment of severe hypertensive cardio-vascular disease it has become a valuable adjunct, allowing adequate blood-pressure control with relatively small doses of ganglion-blocking drugs, such as pentolinium, chlorisondamine, mecamylamine or

pempidine, and thereby reducing the unpleasant side effects which invariably accompany the use of these agents. Its long-term antihypertensive properties, when it is used singly or in combination with less powerful blood-pressure-reducing drugs including reserpine and hydralazine, are less firmly established.

In spite of extensive clinical trials, chlorothiazide has proved to be astonishingly free from side effects. No serious hæmatological toxicity or hepato-renal damage has been reported. Apart from an occasional instance of drug sensitivity, the only limiting factor in the use of this drug lies in the very nature of its pharmacological action—namely, increased urinary loss of water and electrolytes, especially chloride, sodium, bicarbonate and, to a lesser extent, potassium. Whilst the increased excretion of chloride and sodium represents the desirable therapeutic action of the drug, concern has been expressed over the augmented loss of potassium and resultant hypokalæmia. In the majority of cases the lowered serum potassium level is of minor degree, recognizable by laboratory methods only; but instances of general muscle weakness and increased digitalis intoxication as well as electrocardiographic abnormalities have been shown to be due to chlorothiazide-induced hypokalæmia. A number of such patients have been seen at the Cardio-Vascular Clinic, Sydney Hospital, where chlorothiazide has been used extensively for over two years. It has therefore become the practice in many clinics to prescribe potassium supplements, either in the form of a potassium salt, such as potassium chloride, or as pure orange juice, one litre of which supplies approximately 38 mEq of potassium. This supplementation is somewhat cumbersome, necessitating either the daily ingestion of several potassium chloride tablets, with doubtful gastro-intestinal absorption in their sugar-coated form, or of an unpleasant-tasting potassium mixture. The alternative method of drinking large quantities of orange juice may at times prove rather expensive.

The recently introduced hydrochlorothiazide ("Dichlotride", Merck, Sharp and Dohme; "Esidrex", Ciba) is the 3-4 dihydro derivative of chlorothiazide. Preliminary reports suggest that, weight for weight, it has a saluretic potency about 20 times that of chlorothiazide (Richterich *et alii*, 1959). It is furthermore possible that not only do the two drugs differ from the quantitative point of view, but there may be important qualitative differences as well. Bartorelli *et alii* (1959) found comparatively little effect on the excretion of bicarbonate and thus no appreciable rise in the urinary concentration of this anion. Most important of all, some authors (Richterich *et alii*, 1959; Bartorelli *et alii*, 1959; Ford, 1959) report that hydrochlorothiazide produces a smaller increase in potassium excretion than equivalent doses of chlorothiazide. Although this has not been confirmed by other investigators, hydrochlorothiazide appears to induce a diuresis more like the organic mercurial compounds, whilst chlorothiazide retains some of the characteristics of the carbonic anhydrase inhibitors such as acetazoleamide.

A further practical advantage of hydrochlorothiazide lies in the fact that, in view of the lower dosage requirement, it has been possible to incorporate a potassium supplement into the dispensed compound, thus obviating the need for additional potassium in the form of tablets, mixtures or orange juice. Such a tablet, containing 15 mg. of hydrochlorothiazide and 350 mg. of potassium chloride, has been made available for this clinical trial by Ciba Company Pty. Ltd., under the trade name "Esidrex K". The average dose of this compound is from three to six tablets per day, supplying a daily dose of 45 to 90 mg. of hydrochlorothiazide and 14 to 28 mEq of potassium.

Clinical Trial.

Twelve patients were treated with hydrochlorothiazide-potassium chloride tablets ("Esidrex K") for periods varying up to six months (Table I). Eight patients suffered from severe hypertension as previously defined (Bauer, 1955; Bauer *et alii*, 1957; Bauer *et alii*, 1959), with evidence of grade III and grade IV retinopathy (Keith *et alii*, 1939), left ventricular hypertrophy and electrocardiographic changes. In three of these cases hypertension was of renal origin. Every patient in this group was treated with ganglion-blocking drugs in combination with hydrochlorothiazide; pempidine was used in five cases, mecamylamine in two cases and parenteral chlorisondamine in one case. Three patients suffered from essential hypertension with blood-pressure readings exceeding 190/120 millimetres of mercury, but without serious retinopathy, left ventricular hypertrophy or electrocardiographic changes. In this milder hypertensive group hydrochlorothiazide was combined with rauwolfia preparations, including the new chemically modified reserpine, syrosingopine, or with a hydralazine compound such as "Apresoline" or "Adelphane". The twelfth patient was treated for advanced congestive heart failure due to aortic incompetence with ankylosing spondylitis. In addition to hydrochlorothiazide, this patient was treated with digitalis and a diet of low sodium content; no other diuretic was used during the period of this trial.

All patients with severe hypertension were admitted to hospital for ætiological investigations, assessment of renal and cardiac function and blood-pressure stabilization as detailed in previous publications. During this period, the blood pressure in the standing posture was recorded at hourly intervals during the day, and patients were educated in the general principles of ganglion-blocking therapy. Treatment was started with hydrochlorothiazide, and after two or three days ganglion-blockers were added by small increments until adequate blood-pressure control was obtained. Patients already taking ganglion-blocking drugs were advised to cut the dose by half before adding hydrochlorothiazide, in order to avoid sudden excessive hypotensive reactions. Thirty milligrammes of hydro-

TABLE I.

Case Number.	Sex.	Age. (Years.)	Diagnosis.	Days Treated.	Serum Electrolytes (mEq/l.) in Relation to Hydrochlorothiazide Therapy.								Blood Urea Nitrogen. (mEq/l.)	Associated Therapy.
					Before.				After 21 Days.					
					Na.	K.	Cl.	HCO_3.	Na.	K.	Cl.	HCO_3.		
I	F.	48	Renal hypertension.	180	143	3·3	95	31	147	4·5	98	33	19	Mecamylamine.
II	F.	24	Renal hypertension.	180	—	—	—	—	—	—	—	—	23	Pempedine.
III	M.	49	Renal hypertension.	90	140	4·2	98	30	139	4·2	97	37	15	Pempedine.
IV	M.	55	Severe hypertension.	180	—	—	—	—	—	—	—	—	30	Chlorisondamine.
V	F.	44	Severe hypertension.	180	—	—	—	—	—	—	—	—	20	Pempedine.
VI	M.	58	Severe hypertension.	90	140	4·0	98	30	138	4·1	96	31	22	Pempedine.
VII	M.	54	Severe hypertension.	90	—	—	—	—	—	—	—	—	15	Mecamylamine.
VIII	M.	42	Severe hypertension.	90	143	3·9	101	30	143	3·7	94	31	12	Pempedine.
IX	F.	59	Moderate hypertension.	90	142	5·0	105	23	140	3·8	103	30	11	Reserpine hydralazine.
X	M.	35	Moderate hypertension.	90	148	4·7	101	27	142	4·3	101	27	11	Syrosingopine.
XI	M.	56	Moderate hypertension.	90	152	4·4	108	29	144	3·8	98	30	12	Syrosingopine.
XII	M.	50	Congestive heart failure.	180	—	—	—	—	—	—	—	—	25	Digitalis.

chlorothiazide were given twice a day, before breakfast and after lunch, a total of four "Esidrex K" tablets each day. The dosage of the ganglion-blocking drug varied, of course, from patient to patient, but on the whole appeared to be considerably less than when these drugs were used alone.

The serum electrolyte contents were determined in seven cases before the commencement of hydrochlorothiazide therapy and three weeks thereafter. In four cases there was a fall in the serum potassium content, but in only one case was this over 1 mEq/l. No clinical or electrocardiographic evidence of hypokalæmia was found. In two cases the serum potassium level rose; in one of these, reported in detail below, previous treatment with chlorothiazide had been given. In one case the serum potassium content remained unchanged.

No evidence of drug toxicity was observed in patients treated for up to six months. Occasionally a patient complained of slight nausea. This may have been due to the potassium chloride incorporated in the "Esidrex K" tablets or possibly to associated drug therapy, rather than to the hydrochlorothiazide.

Report of a Case.

In March, 1958, Mrs. D., aged 45 years, was found to be suffering from accelerated hypertension. Nephrectomy had been performed at the age of 15 years for tuberculosis of the kidney; no further evidence of this disease was discovered in spite of full investigations. However, she was subject to frequent urinary tract infections due to coliform organisms, and urological examination appeared to confirm the presence of chronic pyelonephritis of the remaining kidney. When she was examined, her blood pressure was 245/160 mm. of mercury, and pulsus alternans, loud gallop rhythm, hæmorrhages and exudates in both ocular fundi and a macular star in the right eye were present. There was definite cardiomegaly with grade II left ventricular hypertrophy in the electrocardiogram. The urine contained protein, red cells and casts, and the maximum specific gravity was 1010. The blood urea nitrogen content ranged from 19 to 25 mg. per 100 ml. The serum electrolyte levels before treatment were as follows: sodium, 140 mEq/l.; potassium, 4·2 mEq/l.; chloride, 102 mEq/l.; bicarbonate, 28 mEq/l. The blood pressure was satisfactorily stabilized with mecamylamine, 10 mg. twice a day, and chlorothiazide, 1 gramme per day, the trough standing blood pressure being about 140/90 mm. of mercury. There was rapid reduction of the retinopathy, pulsus alternans and gallop rhythm disappeared, and electrocardiographic improvement was apparent within six months. However, in spite of potassium supplement in the form of 1 litre of orange juice per day, the serum potassium level dropped to 3·3 mEq/l., and the patient complained of muscular weakness and fatigue. In March, 1959, "Esidrex K", two tablets twice a day, was substituted for chlorothiazide, and the orange juice supplement was suspended. Blood-pressure control was well maintained, weakness and fatigue attributed to hypokalæmia disappeared, and the serum potassium level rose to 4·5 mEq/l. The patient's further progress has been satisfactory.

Discussion.

Chlorothiazide and hydrochlorothiazide are valuable adjuncts to the ganglion-blocking régime of severe hypertensive patients. The addition of these saluretic agents allows smoother and more rapid stabilization in this difficult group of patients, with fewer side effects and less fluctuations in the diurnal blood-pressure levels. Above all, the total daily quantity of ganglion-blocking drugs required appears to be considerably reduced, with a significant diminution of unpleasant parasympathetic-blocking side effects which up to now not infrequently made life for the hypertensive patient rather miserable. Some reports suggest that hydrochlorothiazide may be the most useful and potent diuretic at present available, being somewhat less liable to induce hypokalæmic complications, especially if, because of its greater potency and small dosage, a potassium salt is added to the hydrochlorothiazide compound. The present series is too small to confirm or refute these claims, but it demonstrates the practicability of using this drug, the rarity of electrolyte disturbances and the absence of toxic effects in 12 patients observed for up to six months.

The value of chlorothiazide and hydrochlorothiazide in the treatment of mild to moderate hypertension, alone or in combination with less powerful hypotensive agents such as reserpine or hydralazine, has yet to be established. A carefully controlled large-scale trial of these drugs in uncomplicated and asymptomatic hypertension is urgently needed before their routine use can be advocated in this type of case.

An unexpected phenomenon observed in several patients treated with hydrochlorothiazide and ganglion-blockers was the development of apparent drug tolerance one to six weeks after initial stabilization. This necessitated frequent follow-up examinations with hourly blood-pressure readings during the first two months after stabilization, and sometimes increases in the dosage of the ganglion-blockers. Drug tolerance was found to be distinctly unusual in patients treated with ganglion-blockers as the only potent hypotensive agent, but has been observed with chlorothiazide as well as hydrochlorothiazide. It suggests that sodium depletion due to saluretic agents may be a self-limiting condition, and lends support to the argument that these drugs are best used intermittently, on five days a week, rather than continuously.

Summary.

Chlorothiazide and its more potent derivative hydrochlorothiazide are valuable adjuncts in the treatment of severe hypertension. Twelve patients were treated successfully with a compound containing 15 mg. of hydrochlorothiazide and 350 mg. of potassium chloride, without toxic side effects or serious electrolyte disturbances, for up to six months. Hydrochlorothiazide appears to be the most useful oral diuretic agent presently available.

Acknowledgement.

Thanks are due to Dr. H. H. Knop, of Ciba Company Pty. Ltd., for generous supplies of "Esidrex K".

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Reviews.

Autogenic Training: A Psychophysiologic Approach in Psychotherapy. By Johannes H. Schultz, M.D., and Wolfgang Luthe, M.D.; 1959. New York and London: Grune & Stratton, Inc. 9" × 5¼", pp. 304, with 26 illustrations. Price: $9.50.

AT the turn of the century Oskar Vogt, working on the psychophysiological mechanisms of sleep and hypnosis, observed the possibilities of self-induced states of relaxation. Vogt surmised that the clinical value of any autosuggestive technique need not lie exclusively in an active self-persuasion of the Coué type.

In the approach described by Schultz and Luthe, the patient is trained and then trains himself to achieve a relaxed psychophysiological state; on to this are grafted suitable therapeutic suggestions. In the first standard exercise the patient says "My right arm is getting heavy"

while concentrating on a feeling of warmth and heaviness in the limb. There are a series of such standard exercises, followed by a series of meditative exercises, described in great detail and taking up half the book. Ultimately the patient carries out his own therapy, by adopting the exercises for 10 minutes twice a day. The authors state that the method works with 80% of all adults, but is difficult to apply below the age of 10 years. Thus the method of psychotherapy which emerges is in distinct contrast to psychoanalysis, and the patient is active throughout with practically no passivity or dependence on the person of the therapist.

Anyone who has read Grantly Dick Read and wants to know more of the psychological basis of such an approach may like to read this book. There is an excellent bibliography at the end, and a full and useful index. The value of this book is in what it contributes to topical questions concerning the effectiveness and clinical practicability of the numerous new methods of carrying out psychotherapy.

Sex, Love and Society. By E. R. Matthews, M.R.C.S., L.R.C.P.; 1959. London: Victor Gollancz, Limited. 7¾" × 4¾", pp. 200. Price: 12s. 6d. (English).

THIS book is written primarily for adolescent boys and young men to help them in their approach to sex and marriage. It combines the traditional chivalry of an English gentleman with some common-sense modern psychology and Christian ethics. It deals with the psychology of sex, love, the will, conscience, aggression, personality differences between men and women, courtship, marriage and the family, in a practical, down-to-earth way, enlivened here and there with humour. If it was widely read by the young men of our generation, including medical students, it would do a great deal of good. The sections on the growth of love, aggression, sex differences, and reasons against premarital intercourse will be particularly helpful. The anatomy and physiology of sex are hardly touched on, so that the youth will still need a book on these aspects to supplement this book.

Dr. Matthews, for many years a general practitioner, has specialized in psychotherapy in the past fifteen years. In addition, for the last ten years he has been giving lectures on sex education to schools, training colleges and naval establishments. He has written this book with courage, sincerity and conviction, and doctors can confidently recommend it to their young male patients. However, we would suggest that in future editions Dr. Matthews might consider including some material on the various aspects of love (eros, philia and agape), the erogenous zones in the female, the slower arousal and detumescence of females, and menstruation.

Neo-Natal Paediatrics. Edited by W. R. F. Collis, M.D., F.R.C.P., F.R.C.P.E., D.P.H.; 1958. London: William Heinemann (Medical Books), Limited. 8½" × 5½", pp. 328, with 34 illustrations. Price: 30s. (English).

THIS is a symposium by 27 contributors, of whom 20 practise in Dublin, and therefore predominantly reflects Irish opinion. It is designed to help those organizing neonatal units, as well as to serve as a textbook on neonatal paediatrics.

The editor outlines the scheme for neonatal care adopted at the Rotunda Hospital, Dublin, over the past 25 years. It is pleasing to note that each junior member of the obstetrical staff serves for a time in the neonatal unit. This is an important link in integrating obstetrics and neonatal paediatrics.

The book covers all the conditions commonly met with in neonatal practice. Inevitably the chapters are of unequal merit, and at times the balance of space allotted to different disorders seems a little awry; for example, there are nine pages on steatorrhœa and fibrocystic disease of the pancreas and only 10 pages on prematurity. It is stated that no case of retrolental fibroplasia has occurred at the Rotunda Hospital; but no over-all mortality rate is given.

The chapters on surgical aspects include those on neonatal surgery, plastic surgery, abdominal surgery, urological conditions and conditions of the ear, nose and throat. These are helpful and practical, though some of the explicit details of surgical operations could well be omitted. It is surprising to find no mention of hydramnios in the chapter on œsophogeal obstruction.

On the medical side, the description of the detailed examination of the central nervous system is excellent. The chapter on breast feeding is scanty. In artificial feeding, a rigid schedule of regularity and duration of feeding is adhered to. The author appreciates fat dyspepsia and the dangers of over-feeding—two conditions which it is fashionable at present to decry.

In an interesting chapter on renal function in the new-born, R. A. McCance and E. M. Widdowson make the point that growth is as important as renal function in maintaining the stability of the internal environment.

The treatment of intracranial trauma is evidently more expectant than that in Australia, and little is said about anoxia. The chapter on the baby of the diabetic mother is timely and helpful, and it is interesting to note that the author also uses cortisone for these infants.

There are good chapters on water and electrolyte metabolism and infection. The views and management of fœtal erythroblastosis are at variance with current thought and practice in Australia. Mongolism is considered at length, and advice is given on the approach to the parents. Here, as elsewhere throughout the book, one is impressed by the considerate and humanitarian attitude.

This is a book which is commended to all interested in the newborn infant. The pædiatrician will find himself disagreeing with opinions expressed at various points; but there is no one who can fail to profit from reading it.

Individual and Familial Dynamics. Edited by J. H. Masserman, M.D.; First Edition, 1959. New York, London: Grune & Stratton, Inc. 8½" × 5¼", pp. 224. Price: $6.75.

THIS book is a record of meetings of the Academy of Psychoanalysis held in 1957 and 1958. Part I is devoted to masochism. The argument, however, wanders into other fields, and thereby increases the interest.

L. Salzman, in developing the masochism theme, regards it as a universal technique, a defence mechanism present throughout the ages. He builds his story around a woman, aged 25 years, who had had a humiliating career. Intelligent and attractive, she was destroying her marriage through continually presenting herself in a pathetic light. The persistent theme was her own impossible nature. The underlying motive was the receipt of the world's benevolence on the score of her handicaps. The author outlines his repeated attempts to break through the masochistic barrier. They ended in failure.

Obviously such cases (and they are numerous) present therapeutic difficulties. J. A. P. Millet suggests that the patient resembles old Bill of the Bairnsfather series, who, when asked why he would not leave his shell hole, remarked: "If yer knows of a better 'ole, go to it." It would seem that the deep masochistic outlook is deep-seated, based on the patient's unsatisfactory relations with her mother. He claims her as the Mother Goddess to whom all must bend the knee!

A few pages later Jules H. Masserman reminds us of an entirely different interpretation. He has produced the masochistic picture in laboratory dogs and cats, thus bringing it into the realm of biological mechanisms, as a product of rewards and frustrations.

The foregoing summary briefly indicates an intriguing controversy on basic principles, which requires a nimble wit to follow. The second section deals with the relationship of the therapist to the family of the patient. As late as 1955 Edward Glover, as a result of a questionnaire, concluded that analysts "see members of the family most unwillingly". This symposium suggests a complete change from this attitude. Don D. Jackson aptly orientates the child analyst in the remark: "A child not only learns to respond to his parents, but learns to use them as a model for how to respond."

The implication is obvious. Jackson divides families into four categories: stable satisfactory; unstable satisfactory; stable unsatisfactory; unstable unsatisfactory. The categories can be used as a record of phase, in that the family may be "unstable satisfactory" with the first child but "stable unsatisfactory" with the third. The prognosis varies with the family type, and is worst in the "stable unsatisfactory".

In a section on the family and the schizophrenic parent, failure of the parents to fill their roles is regarded as serious. Such deficiencies would be amusing were they not tragic; they vary from the father who is another child to mother, or a defeated castrated husband, to the cold mother who is a rival to her daughter, or has a homoerotically tinged attachment to her sister.

John P. Spiegel delves into culture of family, and finds the reality of therapy "a slippery subject" because the

culture group—for example, American, Hebrew or Irish—and the economic status in the community set differing standards of transference and counter-transference for both patient and therapist. One must modify methods of treatment to conform to the particular combination, and this is not easy.

Enough has been written to indicate that this is a stimulating book with wide implications. As it is a product of conference in the Academy of Psychoanalysis, a working knowledge of the psychoanalytical nomenclature is advisable for the reader.

The Principles of Humane Experimental Technique. By W. M. S. Russell and R. L. Burch; 1959. London: Methuen & Co. Limited. 8¼" × 5¼", pp. 252. Price: 30s. (English).

THIS book is devoted to a general discussion of the principle that there is "an intimate relationship between humanity and efficiency in animal experimentation". The introduction of statistical methods, bacteriological assays and tissue-culture techniques has clearly shown that in many circumstances large numbers of living animals are not necessarily the best experimental tools. The authors urge that in many types of work the design of experiments should be carefully considered to see whether it is possible that the animals could be "replaced", the numbers used "reduced", or the experimental technique "refined". The authors are a member and past member of the staff of the Universities Federation for Animal Welfare. The book is well planned and well documented; but it would have been improved for scientific readers if a more detached style of presentation had been employed.

Cardiovascular Sound in Health and Disease. By Victor A. McKusick, M.D.; 1958. Baltimore: The Williams and Wilkins Company. Sydney: Angus & Robertson, Limited. 10¼" × 7¼", pp. 582, with 494 illustrations. Price: £8 5s.

IN this monograph Victor A. McKusick, Associate Professor in Medicine in the Johns Hopkins University School of Medicine and Physician to the Johns Hopkins Hospital, has produced a comprehensive survey of past and present knowledge of the sounds produced in the heart and blood vessels in health and disease. In addition, he discusses cardio-vascular sounds in animals and reptiles, and the lung sounds, the bowel sounds and joint sounds in humans. There are also a technical appendix produced with the assistance of Mr. George N. Webb, electronics engineer, an extensive bibliography of 1607 references and a comprehensive index. The work is illustrated with 494 figures, comprising chiefly portraits of pioneers in auscultation, phonocardiograms, line drawings and photographs of radiograms and of morbid appearances in the heart. The monograph, which was written in 1957, is dedicated to the memory of William Harvey (1578-1657) "whose reference to the heart sounds is the earliest and clearest which survives, in the Tercentennial Year after his death".

The first section, which comprises a review of cardio-vascular sound from the time of Harvey up till the present day, is excellently presented. The author regards the period from 1819 to 1919 as "the golden century of stethoscopy", because about 1908 phonocardiography was introduced and replaced stethoscopy, studies of cardio-vascular sound since 1908 having phonocardiographic documentation. He regards the "golden century" as commencing with Laennec and ending with Sir James Mackenzie. We are reminded of such famous names as Jean-Baptiste Bouillaud, who described gallop rhythm (*bruit de gallop*) and venous hum (*bruit de diable*), the Irish physicians (Dominic John Corrigan, Robert James Graves and William Stokes), Thomas Hodgkin of Guy's Hospital, London, James Hope of London, Pierre-Carl Edouard Potain of the *Charité*, Paris, famed for his studies of gallop rhythm, Austin Flint, Graham Steell and Carey Coombs of England, Samuel A. Levine of Boston, U.S.A., who is well known for his system of grading murmurs, and many others.

The chief part of the monograph, however, is concerned with the auscultatory and physical characteristics of cardio-vascular sound in health and disease. This section is profusely illustrated with spectral phonocardiograms. This particular type of phonocardiography differs from the conventional oscillographic method in the fact that the frequency spectrum of the sound is displayed. It is the application to phonocardiography of sound spectrography developed at the Bell Telephone Laboratories in the earlier part of the fourth decade of this century. The expense of the equipment and the complicated technique necessary for its use make it doubtful whether it will be used in clinical practice. The author, however, is confident that this method of spectral phonocardiography will be streamlined for clinical use just in the same way as the electrocardiograph has been adopted for that purpose. Time will tell; but it seems that we are still a considerable distance from that desideratum.

The author is to be congratulated upon producing a monograph of such proportions, which will be most useful for reference purposes.

New Biology, No. 29. Edited by M. L. Johnson, Michael Abercrombie and G. E. Fogg, 1959. 7" × 4¼", pp. 128, with illustrations. Price: 4s.

THE editors of "New Biology" are to be congratulated on maintaining the high standard of their articles in this latest number. For their first article they are fortunate in getting a most interesting account of the theory of continental drift, by W. G. Challoner. This is an hypothesis which, after a period of eclipse, is now being quoted with increasing frequency in various contexts; but it has been difficult for the average reader to find any comprehensive account of it. The other six articles cover a wide variety of topics, and anyone with a general interest in the new (i.e., scientific) natural history will find something to interest him. The only article of direct medical application, entitled "Racial Aspects of Blood Transfusion", is an elementary discussion of the subject, written for non-medical readers. However, medical readers are more likely to be interested in one of the articles outside their own particular field. That on lichens is unexpectedly interesting, and one on biological studies in the Antarctic region gives a good general account of some of the matters which attract biologists to that part of the world.

Books Received.

[The mention of a book in this column does not imply that no review will appear in a subsequent issue.]

"Counter-Transference", by Benjamin Wolstein, Ph.D.; 1959. New York and London: Grune and Stratton, Inc. 8" × 5", pp. 192. Price: $5.50.

"Coronary Heart Disease", by John William Gofman, M.D., Ph.D.; 1959. Oxford: Blackwell Scientific Publications. 9" × 6", pp. 378, with 52 tables. Price: 60s.

"Genetics and Cancer: A Collection of Papers Presented at the Thirteenth Annual Symposium on Fundamental Cancer Research, 1959"; Published for The University of Texas M. D. Anderson Hospital and Tumor Institute; 1959. Austin: University of Texas Press. 9" × 5¾", pp. 470, with many illustrations. Price: $8.50.

"Prevention and Treatment of Polyarthritis by Continuous and Active Immobilization of Joints", by Michael Kelly, M.D. (Adelaide); 1959. Basle: Acta Rheumatologica, Documenta Geigy. 9¼" × 6¼", pp. 78, with many illustrations. Price not stated.

"Fundamental Techniques of Plastic Surgery and Their Surgical Applications", by Ian A. McGregor, M.B., F.R.C.S. (Eng.), F.R.F.P.S. (Glas.), with a foreword by C. F. W. Illingworth, C.B.E., M.D., Ch.M., F.R.C.S. (Ed.), F.R.F.P.S. (Glas.), Hon. F.A.C.S., Hon. F.R.C.S. (Eng.); 1960. Edinburgh and London: E. & S. Livingstone, Limited. 8¼" × 5¼", pp. 252, with many illustrations. Price: £1 10s.

"Proceedings of a Symposium on Immunization in Childhood, held in The Wellcome Building, London, 4th to 6th May, 1959"; 1960. Edinburgh and London: E. & S. Livingstone, Limited. 9¼" × 7¼", pp. 140 with many figures. Price: 17s. 6d.

"The Student and Mental Health, An International View: The Proceedings of the First International Conference on Student Mental Health, Princeton, New Jersey, September 5-15, 1956", edited by Daniel H. Funkenstein, M.D., sponsored by the World Federation for Mental Health, International Association of Universities; 1959. London: H. K. Lewis and Co. Ltd. 8½" × 5¼", pp. 512. Price: £1 15s.

"Africa: Social Change and Mental Health", Report of a Panel Discussion Conducted in Conference Room No. 1, United Nations, New York, March 23, 1959, by the World Federation for Mental Health; 1959. New York: World Federation for Mental Health. London: H. K. Lewis and Company, Limited. 8¼" × 5¼", pp. 40. Price: 3s. 6d. (English).

The Medical Journal of Australia

SATURDAY, MARCH 26, 1960.

THE MEETING OF THE FEDERAL COUNCIL.

THE most pressing business that engaged the attention of the Federal Council at its recent meeting, reported elsewhere in this issue (see page 506), was the Commonwealth Government's introduction of changes in the scheme for provision of pharmaceutical benefits. These changes have aroused strong but mixed feelings in the profession. Beyond doubt there is widespread, practically universal, dissatisfaction, but within this general attitude reactions range from slightly irritated acceptance to frank hostility. Feelings have run particularly high in New South Wales and Queensland, where it is known that a substantial proportion of doctors would be glad to have nothing to do with the new scheme. In the other four States, despite criticism, it would appear that a majority of doctors are prepared to accept the scheme. When a proposal was put forward by the Victorian Branch that the Government be asked to postpone the operation of the scheme for two months to give doctors a chance to have a good look at it, and at least learn how it worked before they were plunged into it, there was general agreement among the Branches, and it was hoped that this might have been done. However, the Government refused to grant the request. Thus the Federal Council at its meeting was faced with the task of attempting to reconcile widely divergent views within a few days of the introduction of the scheme, which was scheduled for March 1. Any real reconciliation was in fact not possible, as the delegates had been instructed by their respective Branches to maintain certain points of view; any decision had to be made by majority vote. The understanding which has long existed between the Branches is that a majority decision of the Federal Council is accepted by all, and despite heartburnings from time to time this has always been loyally adhered to. Therefore when, after a long discussion and much travail, a majority of Federal Councillors voted for a motion expressing willingness to cooperate in the scheme, the Federal Council's policy in the matter was settled. As soon as practicable after this, a Press announcement was made to inform both the public and the profession. No one expected the decision to please everyone, and the last has probably not been heard of the matter, but the Federal Council's policy remains, at least until it meets again. It has stated clearly its intention to review the situation at its next meeting, and has given the Government no reason to regard its present policy of cooperation as a precedent for the future.

The discussion on the proposed Australian Medical Association occupied a good deal of time. The considered views of all the Branches were available, and as these were favourable, the Federal Council decided to go straight ahead with the proposal. A steering committee was set up with authority to discuss the matter with the Branches of the British Medical Association in Australia and with any other medical bodies whom it thought it should consult; it would then prepare a skeleton draft constitution for consideration by the Federal Council. This is the vital stage of the matter. It may not be necessary to delay the actual formation of the new Association until every "i" has been dotted and every "t" has been crossed in its constitution, but it is essential to reach a satisfactory understanding about the framework and especially about the relation to it of various medical bodies which are at present outside the structure of the British Medical Association. Certain points are clear. It is of the utmost importance that a spirit of unity be maintained throughout all sections of the medical profession in Australia, and the new Association must be designed with that end always in view. On the other hand, one must be realistic about suggestions put forward that in some way the Colleges and other special bodies might be constituent parts of the new Association. It is difficult to see how this could be practicable in any real sense. One could not imagine the Royal Colleges, for example, sinking their respective identities in the new Association. No one would expect or want them to do that. But they could not reasonably expect to play any significant part in determining the policies of the governing body of the new Association (except perhaps in matters specifically concerning their own organizations) without being subject to that governing body. The key point of the matter is that the new Association, like the present British Medical Association in Australia, must not be regarded as or be allowed to become sectional within the profession. We know that the position is to some degree otherwise in Great Britain. There a considerable section of the profession has never belonged to the British Medical Association and has always owed its primary allegiance to such bodies as the Royal Colleges. In Australia the vast majority of the members of the medical profession belong to the British Medical Association and have equal democratic rights in determining its policies and the constitution of its various governing bodies. We find it difficult to envisage any other satisfactory basic organization for the new Association than that represented by the present six autonomous Branches. It runs parallel with the structure of the Commonwealth of Australia, and we suggest that in conformity with this pattern the powers of any central governing body will have to be essentially those which have been conceded to it by the several autonomous Branches. We do agree, however, that the Colleges and other medical bodies will need an effective voice in stating their views on matters that specifically concern them, and this, it seems, would be best brought about by some form of affiliation such as they have in Canada. An affiliated organization might then have a

representative on the central governing body; or some form of separate consultative council might be formed to deal with special matters, having representatives drawn from the various major medical bodies including the Australian Medical Association. We hope that the matter will receive the fullest discussion in the columns of this Journal and elsewhere. The time to discuss it is now, not after the new Association has been formed. Incidentally, we hope that not only will the new Association be accepted as the one body to carry on medico-political negotiations, but that it in its turn, while not in any way putting aside its interest in medicine, or compromising its status as a scientific medical body, will be ready and able to turn more and more to the Royal Colleges and other bodies for opinions on the scientific aspects of medicine.

Many other matters were dealt with at the meeting. Indeed, only some of them are referred to in our report of the meeting, although we have tried to include all items that are likely to be of general interest. It was a long and in many ways difficult meeting, but the opinion may be expressed from the sidelines that the representatives of the Branches on the Federal Council apply themselves willingly and conscientiously to the knotty problems presented to them. We know that their work is generally appreciated, especially by their colleagues on the several Branch councils, but it does no harm to draw the attention of the profession at large to the magnitude of the work done voluntarily on its behalf by its democratically elected Federal Council representatives, and indeed by its Branch Councillors also.

Current Comment.

BILIRUBIN METABOLISM AND JAUNDICE.

VIRCHOW, in 1847, first associated the pigment of the bile with hæmoglobin by showing that crystals of what we now call bilirubin could be found in extravasations of blood. Many years later, in 1937, Hans Fischer isolated bilirubin and determined its chemical structure. The next important landmark in the understanding of bilirubin was the discovery of two different bilirubin complexes in the blood serum of man which gave what van den Bergh and Snapper called the direct and indirect test with Ehrlich's specific reagent for bilirubin, diazotized sulphanilic acid. They found, in 1913, that when diazotized sulphanilic acid was added, in the presence of alcohol, to serum from a patient with hæmolytic jaundice a red colour developed. When the alcohol was omitted no red colour developed. On the other hand the colour did develop when the test was applied to urine from a patient with obstructive jaundice or to diluted bile. The first was called the indirect test, the second the direct test. Much discussion developed as to the meaning of the tests and it was considered for some time that when the hæmoglobin was destroyed in the reticuloendothelial cells, the bilirubin formed combined with the globin and was carried in the blood to the liver where the globin was split off. This was never confirmed by laboratory demonstration, and in 1953 Cole and Lathe[1] showed that bilirubin, completely free from protein, could be separated into three fractions one of which gave the indirect reaction and the other two the direct reaction. It was shown by several workers independently that the pigments which gave the desired reaction with diazotized sulphanilic acid were bilirubin conjugated with one or two molecules of glucuronic acid. I. M. Arias[2] has given a detailed account of the investigations that have been made from that point.

Conjugation with glucuronic acid is a method commonly used in the body to detoxicate poisonous substances or to make insoluble substances soluble, so that they can be excreted in the urine. About 80% of the bilirubin in normal human bile is in the form of a glucuronide, about 15% is conjugated as ethereal sulphate. Bilirubin is not excreted either into the bile ducts or into the urine unless it is conjugated. The bilirubin separated by the reticuloendothelial cells is combined with serum albumin and carried in this form to the liver. Here the protein is split off and replaced by glucuronic acid. The glucuronic acid, derived from glucose, reacts with a high energy substance, uridine diphosphate, and with an enzyme, glucuronyl transferase, and combines with the bilirubin. The bilirubin passes in this form into the intestine where most of it is converted to urobilin and urobilinogen. The urobilinogen is absorbed into the blood-stream but most of it is excreted into the bile. The remainder is excreted in the urine. This is important diagnostically. In obstructive jaundice, if the obstruction is complete, there is no urobilinogen formation in the intestinal tract and so no urobilinogen excretion in the urine. This is of great importance in the differential diagnosis of biliary obstruction and hepatitis. In obstructive jaundice the bilirubin metabolism is normal, but the pigment cannot pass into the bile and passes into the blood and urine. The bilirubin is conjugated with glucuronic acid, and so gives the direct van den Bergh reaction in the serum. In hæmolytic jaundice more hæmoglobin is being broken up than can be handled by the liver, and unconjugated bilirubin which gives the indirect van den Bergh reaction circulates in the blood but cannot pass into the urine. There are several types of non-hæmolytic acholuric jaundice. The Crigler-Najjar syndrome, a very rare disease in infants, is associated with jaundice shortly after birth without evidence of hæmolysis and with indirect or unconjugated bilirubinæmia of 11 to 48 mg. per 100 ml. There is no bile in the urine and the livers are normal histologically. Nearly all patients die of brain damage due to deposition of bilirubin, a condition called kernicterus. Here there is deficiency or absence of the enzyme system in the liver necessary to conjugate glucuronic acid.

Another type of non-hæmolytic acholuric jaundice is known as Gilbert's disease and by many other names. The characteristic feature is unconjugated bilirubinæmia usually of the range 2 to 5 mg. per 100 ml. but it may be much higher. This condition is not very rare and is commonly diagnosed as chronic hepatitis. The condition usually begins in early life and may be quite intermittent. All the liver functional tests give normal results, and there is no bilirubinuria. No one dies of the disease. In a study of 18 cases Arias found that there is decided reduction in the liver glucuronyl-transferase activity, more marked in some cases than in others.

Clinical jaundice occurs because part of the bilirubin is not conjugated so cannot be excreted either in the bile or in the urine. Physiological jaundice occurs in a large proportion of new-born infants particularly if they are premature. The serum bilirubin concentration in the new-born infant within the first few days of life is usually 1·5 to 4·5 mg. per 100 ml. but may be up to 20 mg. In the premature infant the degree of bilirubin is much higher and may go to 50 to 70 mg. per 100 ml. When the unconjugated bilirubin in the serum exceeds 18 to 20 mg. per 100 ml. it is deposited in many cells of the central nervous system and may cause permanent injury or death. This contributes significantly to the mortality rate of premature infants. The liver glucuronyl-transferase system is defective at birth but usually becomes adequate at about the third or fourth day of life. In the premature infant the building up of the

[1] *J. clin. Path.*, 1953, 6: 99 (May).

[2] *N.Y. State J. of Med.*, 1959, 59: 3759 (October 15).

enzyme system takes longer and unconjugated bilirubin accumulates in the blood. In infants with erythroblastosis there are two factors concerned, increased destruction of hæmoglobin and deficiency in the enzyme system.

In patients with severe hepatitis all of the serum bilirubin may be of the conjugated type. In some such cases a glucuronyl-transferase system has been found in the blood, where normally it is not found. This corresponds to the finding of serum glutamic oxaloacetic transaminase in the blood of certain patients, for example, those with coronary thrombosis.

SALICYLATES AND METABOLISM.

SALICYLATES, mainly as sodium salicylate and acetylsalicylic acid, are among the most commonly used drugs; of particular value in rheumatic conditions, they are used empirically in many other conditions. Although a tremendous amount of investigation has been undertaken on the effects of salicylates on various metabolic changes in the body, the mode of action is very far from being clear. M. J. H. Smith[1] has reviewed the work that has been done and the present position as regards the pharmacology of salicylates. He states that aspirin is much used as an antipyretic, yet it is paradoxical that one of the more serious symptoms of poisoning by large doses of salicylates is hyperpyrexia. This may be related to the fact that therapeutic doses of salicylates can cause a marked and progressive increase in oxygen consumption both in normal subjects and in rheumatic patients. The bearing of this on the action of salicylates on cell metabolism will be seen later. With this increase in oxygen usage there is increased production of carbon dioxide. Salicylates have a definite action in protein metabolism, among other things significantly reducing the incorporation of ^{14}C from labelled amino acids into proteins. Little is known of the action on fat metabolism. Large doses of salicylates may cause hyperglycæmia and/or glycosuria. In the intact animal salicylates cause a severe depletion of liver glycogen and probably also of muscle glycogen.

During the past few years particular attention has been paid to the effect of salicylates on phosphate metabolism. Probably the most important feature of cell metabolism is the conversion of the energy derived from substrate oxidation to that contained in the pyrophosphate bonds of compounds such as ATP (adenylpyrophosphate). The energy is stored in these compounds as high energy phosphate bonds, which can subsequently be utilized for the many and various functions of cells, such as muscular and osmotic work, and synthesis of large molecular compounds, such as glycogen and proteins. The production and storing of high energy phosphate bonds and cell oxidation of substrates are interdependent phenomena, being linked through a series of enzymic reactions. The coupling between the oxidations and production of high energy phosphate bonds can be broken or uncoupled so that oxidation alone can proceed. A number of workers have shown that salicylates are active agents in causing this uncoupling. In this investigation suspensions of mitochondria from liver cells or brain cells have been used, for these contain the complete enzyme systems necessary for the production of high energy bonds following oxidations. The main changes which should result from an uncoupling action are reductions in the synthesis of high energy phosphate compounds, such as ATP and creatine phosphate, an increased accumulation of inorganic phosphate and no lessening of oxidation.

What will be the effects of this uncoupling on cell metabolism? There will be a reduction in the synthesis of large molecules such as glycogen and proteins, for these require readily available energy for the necessary reactions to proceed. There will be an alteration in the permeability of cell membranes, within as well as outside the cell, for energy is necessary here to control the passage of certain substances through the membranes and the non-passage of others. There will be increasing breakdown of available substrates and increased heat production, because the energy set free by oxidation is not converted into high energy bonds in the organic pyrophosphates.

These various secondary changes follow the taking of salicylates. The increased oxygen consumption and carbon dioxide production found in normal and rheumatic subjects when they take salicylates are evidence of increased substrate oxidation. The hyperpyrexia often observed with large doses is indicative of the same change. Diminished protein and glycogen synthesis can be explained by the uncoupling. However, the relation of the uncoupling to the anti-inflammatory effects of salicylates in rheumatism is not so easily explained. The transport of water and electrolytes across cell membranes and from large colloidal molecules in joint tissues may offer an explanation. The diminished synthesis of large molecular compounds may be a factor. The uncoupling action of salicylates may induce new equilibria leading to the net loss of water and electrolytes from the tissues.

All the effects of salicylates in the tissues cannot be explained on the basis of their uncoupling action on oxidative phosphorylation reactions, but the discovery that they do not have this action is an important advance in the understanding of the action of salicylates in the body whether in health or in disease. Research now in progress should help to clear up some of the difficulties in interpretation of available facts.

[1] *J. Pharm. (Lond.)*, 1959, 11: 705 (December).

SMALLPOX IN 1959.

SOME 72,000 cases of smallpox were reported in 1959 throughout the world (outside mainland China), according to a recent announcement by the World Health Organization.[1] This is a striking drop from the total of 242,000 cases reported in 1958. The improvement is due to the fall of the incidence in India and East Pakistan where, after the unusually high levels of 1958 (with about 218,000 cases), only 50,000 were reported during 1959. The total number of cases fell in India from 168,000 to about 43,000, the highest incidence being recorded in Orissa (about 800 cases or 55 per 100,000 population). However, smallpox incidence has not decreased to any considerable extent outside India and East Pakistan; about 22,000 cases were recorded during the year (against 24,000 in 1958) in Asia (outside India and Pakistan), Africa and South America.

In ports and towns served by an international airport the highest number of smallpox cases was, as usual, recorded in India (Madras 2129, Cochin 633, Bombay 519 and Delhi 401 cases) and other countries of Asia (371 in Makassar, Indonesia, and 341 in Rangoon, Burma), but sporadic cases were also reported in a number of ports and airports of Africa and South America. All cases on board ship or brought by air during the year originated in Asia.

About 14,000 cases were recorded in Africa, excluding Liberia, in 1959; in 1958 statistical returns showed a total of about 15,000 cases in Africa, outside Liberia, where not less than 5000 cases were reported. In 1959 the number of cases decreased in the seven territories of former French West Africa from 7000 to about 4000, but rose in the Belgian Congo from 1300 to 2500.

In the Americas some 3000 cases were recorded. The main foci of smallpox are still in Brazil, Colombia and Ecuador.

In Europe imported infection accounted for 19 cases at Heidelberg in Germany in January. One case, imported by air from India, was reported in East Berlin. A single case was reported at Liverpool, England. In the U.S.S.R. a single case was notified at Termez in the Uzbekistan S.S.R.

[1] *Wkly epidem. Rec.*, February 26, 1960.

Abstracts from Medical Literature.

OPHTHALMOLOGY.

Mycotic Ulcerative Keratitis.

BANKS ANDERSON *et alii* (*A.M.A. Arch. Ophthal.*, August, 1959) report on five patients with mycotic ulcerative keratitis and comment on the characteristics of the lesion, the role of the various fungi, the effect of previous antibiotic and steroid therapy and the role of amphotericin B and lamellar grafts in the healing process. There is usually a history of abrasion or foreign body followed by an ulcer which improves with standard therapy. The healing process becomes static or torpid. The surrounding area of the cornea liquefies to form a shallow crater and around this crater a wide greyish halo forms. The organisms involved were *Penicillium* species, *Aspergillus versicolor*, *Fusidium terricola*, *Giberella fujikori*, *Curvularia lunata* and a corn smut. There was a striking absence of bacterial infection. It is probable that the increased incidence of these infections is related to the use of corticosteroids. The authors found that amphotericin B and keratoplasty have been effective in the treatment of this condition.

Exogenous Intraocular Fungous Infection.

B. S. FINE AND L. ZIMMERMAN (*Amer. J. Ophthal.*, August, 1959) report fully on 13 cases of intraocular mycotic infection following accidental or surgical perforation of the globe. They mention that intraocular fungous infection can also follow penetration of a mycotic ulcer, and that there may be hæmatogenous spread from a remote focus. It was found that in fungous infection there is a definite latent period of several days to several months between time of infection and the clinical appearance of inflammation. The infection tends to become localized in the anterior vitreous with the remainder of the vitreous remaining clear. Because of this localization projection of light may remain for a long period. The initial anterior segment inflammation responds to therapy, but a sudden exacerbation may occur within one or two weeks. Ætiological diagnosis may be difficult, as even paracentesis of the anterior chamber may fail to reveal the fungus. The authors recommend that in pre-operative preparation of the eye steroids and antibiotics, especially tetracyclines, should not be used, that the conjunctival sac should be thoroughly irrigated, that great care should be taken in the sterilization of instruments, and that more care should be taken in the use of multiple-dose bottles of medicaments and saline in the operating room.

Intracavernous Aneurysms of the Internal Carotid Artery.

S. P. MEADOWS (*A.M.A. Arch. Ophthal.*, October, 1959) describes the clinical features and course of unruptured intracavernous aneurysms. The author has followed 15 patients for several years. Thirteen of these patients were women and 11 were over 50 years of age at the time of onset. The onset may be abrupt or slow and insidious. Pain in and around the eye may be a prominent symptom, coming in bouts. On the other hand pain may be minimal. Involvement of the oculomotor nerves is usually one of the presenting signs. The sixth nerve is usually affected first, and eventually third nerve involvement occurs. The pupil is usually small. The ophthalmic division of the fifth nerve is involved, which produces corneal anæsthesia. Expansion of the aneurysm in an anterior direction produces exophthalmos and optic atrophy, whilst expansion posteriorly may involve the auditory nerve and so produce ipsilateral deafness. Diagnosis may be confirmed by X-ray examination and arteriography. The treatment of choice is ligation of the common carotid artery in the neck, provided that it has been shown that there is adequate collateral circulation.

Tumours of the Brain Stem.

P. BUCY AND J. KEPLINGER (*A.M.A. Arch. Ophthal.*, October, 1959) discuss the ocular signs of intrinsic tumours of the brain stem, most of which are infiltrating gliomas. These tumours occur predominantly in children and are found only occasionally in people over 20 years old; they form 15% to 20% of all intracranial tumours in patients under 15 years of age. Patients with intrinsic brain stem gliomas may present with cerebellar symptoms. In many cases the initial symptom is double vision and internal strabismus caused by involvement of the sixth nerve, and this may be bilateral. The lateral rectus paralysis is often associated with a paralysis of lateral conjugate deviation of the eyes to the side of involvement or with abolition of all movement in a horizontal plane where both sixth nerves are involved. The presence of lateral rectus palsy in a child in the absence of increased intracranial pressure is highly suggestive of a pontine glioma. Facial paralysis commonly occurs also. Extension of the tumour to the mid-brain may result in impairment of upward rotation of the eyes. Nystagmus and involvement of the fifth cranial nerve are also common findings. Papilœdema develops late in the course of these tumours.

Technique for Corneal Mushroom Grafts.

F. W. STOCKER (*Amer. J. Ophthal.*, July, 1959) describes a new technique for cutting a mushroom graft—a peripheral lamellar graft with a central penetrating core. As a rule the author prefers an eleven-millimetre lamellar graft and a six-millimetre penetrating graft. Using an eleven-millimetre trephine the cornea is incised to half its thickness. The area to which the penetrating graft is to be confined is marked with a caliper. The cornea is then split until the area marked for the penetrating graft is reached. The cornea with a small scleral ring is then removed. The cornea, endothelial surface up, is placed on a paraffin block of concavity corresponding to the shape of the cornea. A six-millimetre trephine is then applied in the central area. The ring consisting of the deeper layers of the stroma which is to be discarded is excised with scissors. The result is a six-millimetre perforating and eleven-millimetre lamellar graft. The recipient eye is prepared by removing an eleven-millimetre lamellar slice and a central six-millimetre plug is removed. The edge of the lamellar graft is then sutured. Air is not injected into the anterior chamber. Both eyes are covered for five days, and sutures are removed between the tenth and twelfth post-operative days.

Urea as an Osmotic Hypotensive Agent in Glaucoma.

M. A. GALM *et alii* (*A.M.A. Arch. Ophthal.*, September, 1959) studied the effect of urea on intraocular pressure in 35 patients with various types of glaucoma which had not responded to other forms of therapy. An intravenous infusion of 30% of luophilized ammonia-free urea in a 10% solution of invert sugar was administered at the rate of 3 to 5 ml. per minute. The total dose of urea was one gramme per kilogram of body weight. It was found that dramatic reduction in intraocular pressure was obtained between 30 and 45 minutes after the inception of the urea infusion. The nature of the patient's glaucoma in no way influences the osmotic response. The profound hypotony permits miotics to exert their pupillary effect.

Thrombosis of the Central Retinal Vein.

G. D. HOWDEN (*Canad. med. Ass. J.*, September 1, 1959) describes the successful treatment of a patient with thrombosis of the central retinal vein by the intravenous infusion of fibrinolysin on three consecutive days. Excellent thrombolysis occurred, resulting in striking visual improvement. There were severe, if somewhat delayed, side-effects, consisting of fever, skin rash, leucocytosis, production of plasmocytes and a high gamma-globulin level. It is stated that little benefit results when the thrombus is four days or more old.

Cyclodiathermy in Glaucoma with Severe Visual Field Loss.

J. C. LOCHE (*A.M.A. Arch. Ophthal.*, October, 1959) indicates that glaucoma with severe field loss which is not controlled by medical means may be treated by a filtering operation, by continuing the medical treatment, or by cyclodiathermy with or without medical treatment. The author reports on 13 patients treated by the last method. Indications for cyclodiathermy were as follows: three eyes were operated upon because the intraocular tension was 60 mm. of mercury or over; four eyes had tensions between 27 and 34 mm. of mercury and there was continued field loss; six eyes had tensions between 28 and 40 mm. of mercury and field loss was extreme. The operation was performed under local anæsthesia. Diathermy was applied through conjunctiva with a 1·5 mm. Castroviejo electrode 6 mm. behind the limbus; the duration of application was 10 seconds and the number of applications was eight to 10 where the tension was 26 to 32 mm. of mercury, 12 to 16 applications where the tension was high. At the end of operation neither miotic nor mydriatic was instilled. Miotics were required

post-operatively in nine of the 13 eyes. There was no reduction in vision in any of the eyes; lens opacification was not accelerated, nor did lens opacities develop in lenses which had been clear before operation.

Dexamethasone in Ophthalmology.

R. H. NIELSEN (*A.M.A. Arch. Ophthal.*, September, 1959) presents his experiences with dexamethasone, a steroid with a potency eight to 10 times that of prednisone or prednisolone and 30 times that of cortisone and with a remarkable absence of side effects. The contraindications are the same as for the other steroids. Before commencing treatment the author rules out all contraindications and takes the patient's blood pressure and weight. In addition he measures diameters of extremities at given points. Blood pressure examinations are repeated at subsequent visits. While patients are on the highest dosage he also has at least one of each of the following investigations performed: electrocardiogram, estimations of blood sugar level, serum sodium level and serum potassium level, and analysis of a 24-hour urine specimen for calcium, creatine, creatinine and 17-ketosteroid content. Patients are started on a schedule varying from 3·2 mg. to 10 mg. daily. Most ocular disease which responds to steroids will respond to doses of 4 mg. or less.

D. M. GORDON (*Amer. J. Ophthal.*, November, 1959) reports on the use of dexamethasone in 67 patients. The scheme of treatment was much the same in all patients with initial doses of 3·5 to 4·5 mg. daily. Diseases treated were iridocyclitis, choroiditis, optic neuritis, disciform keratitis, herpes zoster, macular degeneration with œdema and Behcet's disease. There was favourable response in all these conditions. Coats's disease and central serous retinopathy failed to respond. The only side effects observed were œdema in varying degrees and four cases of acne.

OTO-RHINO-LARYNGOLOGY.

Loudness Recruitment and Vertigo.

W. ALEXANDER (*Laryngoscope*, February, 1959) states that section of the eighth nerve or acoustic tumour formation results in degeneration of the spiral ganglion, but the organ of Corti remains normal unless the blood supply is interfered with. In Ménière's disease, a pathological disturbance in the end-organ of hearing (i.e., in the sensory receptor mechanism) occurs. The binaural loudness balance test and the difference limen test yield equivalent results. The recruitment phenomenon and/or decreased difference limen results from lesions in the receptor mechanism or the organ of Corti, as in Ménière's disease. The phenomenon is generally absent in other forms of perceptive deafness, unless there has been an interference with the blood supply of the cochlea. The presence of the recruitment phenomenon should, in the present state of knowledge, preclude the possibility of restorative hearing surgery on the inner ear. The recruitment phenomenon indicates a gross lesion in the end-organ of hearing, with which there is generally speaking a decrease in speech intelligibility. The presence or absence of the loudness recruitment phenomenon, therefore, should be of some value in determining the probable usefulness of a hearing aid. Persons with conductive deafness due to alterations in the middle ear mechanism do not exhibit the loudness recruitment phenomenon. The absence of the loudness recruitment phenomenon in the presence of a perceptive deafness is generally indicative of a retrocochlear localization of the lesion. The topographic diagnostic significance of the loudness recruitment phenomenon should not be overestimated, and other investigations should not be neglected; however, the loudness recruitment phenomenon and the difference limen test appear, from anatomical, pathological, physiological and clinical points of view, to be valid and reliable. They have given the profession a means of differentiating cochlear from retrocochlear lesions in perceptive hearing losses, whether due to injury, infection or degenerations, and, as such, have added infinitely to our neuro-otological armamentarium.

The Pre-School Nerve-Deaf Child.

B. ZONDERMAN (*Laryngoscope*, January, 1959) presents a study of 328 deaf children analysed as to ætiological factors. The causes of deafness, the age at first visit, and the intelligence quotient of 202 of these children are reported. The difficulties in making a precise ætiological diagnosis are pointed out. The large number of cases in which the cause was undetermined is discussed and partly explained. The study shows that the intelligence of deaf children as a group is comparable to that of children with normal hearing, 73% showing normal intelligence, 16% being retarded and 11% being of superior intelligence. Most of the retarded children were among those injured during the birth process. The importance of early detection of infantile deafness and the need for early training are stressed. A start in the first twelve months is possible. The duty of otologists to disseminate widely the recently acquired knowledge as to the ætiology of deafness in early childhood is emphasized, and the possibilities of prevention of most of the causes of infantile deafness are noted. The pertinent literature is reviewed and a bibliography is appended.

Recurrent Nasal Polypi.

F. B. KORKIS (*J. Laryng.*, July, 1959) discusses the use of an intero-external "window" ethmoidectomy operation. Control of four factors in management is suggested. These are, control of allergy, control of infection, control of polypus-bearing area (possible only by an external approach) and control of stress (repeated visits for removal of recurrent polypi can lead to anxiety state in predisposed individuals); the necessity of external operation is fully explained to the patient with the aim of giving firm assurance. The indications and some aspects of the technique of the "window" operation are given as well as results. The author states in his conclusion that in recurrent polyposis intero-external "window" ethmoidectomy has given very satisfactory results, as judged by relative freedom from recurrence and from serious post-operative complications. It cannot be too often repeated that success depends entirely on the care which the surgeon pays to details. The problem of complete exenteration of the ethmoidal labyrinth is primarily a technical one that is gradually being solved, and evidence is accumulating to prove that recurrent nasal polyposis is, contrary to general belief, a condition curable by surgery.

The Lymphoid Tissue of the Nasopharynx.

A. R. HOLLENDER (*Laryngoscope*, May, 1959) states that present knowledge holds to the belief that the functions of the lymph structures of the nasopharynx are similar to those of the general lymphatic system. Of the several concepts advanced concerning the growth and involution of lymphoid tissue, the one of a hormonal-lymphoid relationship merits special consideration. Atrophy of nasopharyngeal lymphoid tissue is not an invariable development of advancing age, the incidence of enlargement of this tissue having been found to be relatively high in older persons. Hypertrophied nasopharyngeal lymphoid tissue creates and causes various clinical problems, the main interest in oto-rhino-laryngology centring on complications which develop in the respiratory and auditory organs. Failures in the management of nasopharyngeal lymphoid tissue often can be accounted for by inadequate extirpation, by lack of regard for a possible generalized lymphatic disorder, and by absence of an effective method by which abnormal regenerative activity of the lymphoid organs can be controlled or completely retarded. Theoretically, the ideal would be a method of prevention, with adequate control of allergy and infections of the upper respiratory tract in infancy and childhood, or after surgical intervention. The author states that hope rests in advances in hormonal preparations through whose effects the activity of the entire lymphatic system could be adjusted or regulated permanently as the indications warranted.

Modified Radical Mastoidectomy.

H. A. BEAGLEY (*N.Z. med. J.*, October, 1959) states that mastoidectomy other than the simple (cortical) operation has in the past been apt to be followed by a deterioration in hearing, and that this fact has often deterred otologists from operating. The purpose of his present article is to show that, by recent innovations of technique, the otologist's dilemma in respect of the hearing in aural infection has largely been resolved. The author proceeds to describe various modifications of classical techniques designed to preserve or improve hearing in patients requiring mastoidectomy. These are discussed under the following headings, with illustrative case notes: (i) Mastoidectomy with meatal preservation. (ii) Modified radical mastoidectomy with preservation of the ossicular chain and tympanoplastic closure of the attic by various means. (iii) Radical mastoidectomy with tympanoplasty. In conclusion the author states that he considers that the techniques described are promising and worthy of further trial and evaluation.

British Medical Association.

MEETING OF THE FEDERAL COUNCIL.

A MEETING of the Federal Council of the British Medical Association in Australia was held at the Medical Society Hall, 426 Albert Street, East Melbourne, Victoria, on February 26, 27, 28 and 29, 1960. The President, DR. H. C. COLVILLE, was in the Chair.

REPRESENTATIVES.

The following representatives of the Branches were present:

New South Wales: Dr. W. F. Simmons, Dr. A. J. Murray, Dr. R. H. Macdonald, Dr. E. F. Thomson.

Queensland: Dr. R. A. M. Miller, Dr. Charles Roe.

South Australia: Dr. L. R. Mallen, Dr. C. O. F. Rieger.

Tasmania: Dr. L. N. Gollan, Dr. F. R. Fay.

Victoria: Dr. H. C. Colville, Dr. J. G. Johnson, Dr. T. G. Swinburne.

Western Australia: Dr. C. W. Anderson, Dr. D. D. Keall (*vice* Dr. D. M. Clement).

Retirement of Representatives.

The President referred to the retirement from the Federal Council of Dr. A. E. Lee and Dr. D. P. Sapsford, who had been the Queensland representatives, and paid tribute to their services, especially those of Dr. Lee who had served for 17 years on the Council. The Federal Council then passed the following resolutions.

That the Federal Council of the British Medical Association in Australia wishes to place on record its deep appreciation of the services rendered by Dr. A. E. Lee during his years as a member of the Council. His wide knowledge and wisdom in all medico-political spheres have been of great value to the Council, and the medical profession throughout Australia owes him a deep debt of gratitude.

That the Federal Council place on record its appreciation of the valuable services rendered to the Federal Council and to the profession in Australia by Dr. D. P. Sapsford whilst a member of the Federal Council.

APPOINTMENT OF OFFICE-BEARERS.

The following office-bearers were appointed for 1960, the appointment in each case being uncontested:

President: Dr. H. C. Colville.

Vice-President: Dr. A. J. Murray.

Honorary Treasurer: Dr. W. F. Simmons.

ANNUAL REPORT.

The annual report of the Federal Council for 1959 was presented by the General Secretary. The President referred to the report in complimentary terms, and the Federal Council resolved to place on record its appreciation of the work of the Secretariat in producing the report.

FINANCE.

Annual Financial Statement.

The annual financial statement and balance sheet of the Federal Council was presented by the Treasurer, Dr. W. F. Simmons, and adopted. The Honorary Treasurer pointed out that during 1959 there had been an excess of expenditure over income to the extent of £1071.

Organization Fund.

The Honorary Treasurer presented the financial statement of the Organization Fund, for the year ended December 31, 1959. The balance standing to the credit of the fund was £1703.

Federal Independence Fund.

The Honorary Treasurer presented the financial statement of the Federal Independence Fund for the year ended December 31, 1959. The balance standing to the credit of this fund was £225,027. It was resolved that some of the money standing to the credit of the fund in the current account be invested in Commonwealth Bonds, and that the matter be left in the hands of the Honorary Treasurer.

Entertainment Fund.

The Honorary Treasurer presented the financial statement of the Entertainment Fund for the year ended December 31, 1959. The amount standing to the credit of the fund was £279.

Debentures in New South Wales Branch Premises.

The Honorary Treasurer referred to the debentures held by the Australasian Medical Congress Account in the New South Wales Branch premises, and reported that the interest for the year from these debentures had been £23 5s.

APPOINTMENT OF AUDITORS.

It was resolved that F. W. Duesbury and Company be appointed auditors for the ensuing year at a fee to be fixed.

SECRETARIAT.

The appointment of Dr. C. J. Ross-Smith as Assistant General Secretary was confirmed.

HENRY SIMPSON NEWLAND PRIZE IN SURGERY.

The Honorary Treasurer presented the financial statement of the Henry Simpson Newland Prize Fund for the year ended December 31, 1959. The balance standing to the credit of the fund was £1070 5s.

MEDICAL OFFICERS' RELIEF FUND (FEDERAL).

The Honorary Treasurer presented the trustees' report of the Medical Officers' Relief Fund (Federal) for the year ended December 31, 1959. This was adopted. The amount standing to the credit of the fund was £6455. The total amount which had been paid to four beneficiaries was £764.

FEDERAL MEDICAL WAR RELIEF FUND.

The Honorary Treasurer presented the trustees' report of the Federal Medical War Relief Fund for the year ended December 31, 1959. The amount standing to the credit of the fund was £16,293. A total of £906 9s. had been paid to ten beneficiaries. The report was adopted.

HONOURS.

The President referred to the following honours which had been conferred by Her Majesty the Queen in the New Year Honours List: Lieutenant-Colonel Sir Charles Bickerton Blackburn, K.C.M.G.; Sir Edward Ford, Knight; Sir William Johnston, Knight; Dr. T. J. O'Leary, C.B.E.; Colonel R. G. C. de Crespigny, O.B.E.; Dr. J. R. Donaldson, O.B.E.; Mr. H. J. Goodes, C.B.E.; Mr. R. H. D. White, O.B.E. The General Secretary reported that a suitable letter of congratulation had been sent in each case.

MEDICAL PRACTICE IN AUSTRALIA.

The General Secretary reported that he had received a considerable number of inquiries from overseas regarding general practice in Australia and had sent a suitable reply in each case. Reference was also made to correspondence with the Australian Post-Graduate Federation in Medicine and the Philippine Medical Placement Programme Incorporated relating to a request that Filipino doctors should be afforded an opportunity for further internship and residency in Australia. The matter was still under discussion.

CONGRESS OF INTERNATIONAL SOCIETY FOR THE WELFARE OF CRIPPLES.

The General Secretary referred to a notice about the eighth World Congress of the International Society for the Welfare of Cripples to be held in New York from August 28 to September 2, 1960. The notice had been sent by the Australian Advisory Council for the Physically Handicapped with a request for nominations for representatives to attend the congress. The General Secretary reported that the matter had been referred to the Branches, but so far no nominations had been received.

ROLL OF FELLOWS (B.M.A.).

A letter was received from the Queensland Branch advising that the Branch had nominated Dr. Harold William Horn, Dr. Alan Edward Lee and Dr. John George Wagner for admission to the Roll of Fellows of the British Medical Association. A discussion took place regarding this Roll of Fellows which had been introduced by the Parent Body of the B.M.A. in 1957, and it was resolved that the attention of the Branches should be drawn to the possibility of naming members for admission to the Roll.

INCREASES IN POSTAL AND TELEPHONE CHARGES.

A letter was received from the Queensland Branch referring to strong protests that had been made at a recent Branch convocation in relation to the recent increases in postal and telephone charges; some members had estimated that these would cause a 5% increase in their general overhead expenses. The Queensland Branch Council, after consideration of the matter, had forwarded a recommendation to the Federal Council that a protest should be made to the Federal Government against the increases. The General Secretary reported that the recommendation had been referred to the other Branches, but the recommendation of the Queensland Branch had not been supported. The Federal Council decided to take no further action in the matter.

UNQUALIFIED MEDICAL PRACTICE.

The General Secretary referred to a copy of a Bill which had been received from the Western Australian Branch. This Bill was for an Act to provide for the training, qualification and registration of persons as natural therapists and the practice of natural therapies. The Bill had been referred to a select committee, which had now become a Royal Commission.

MATRIMONIAL CAUSES ACT, 1959.

A letter was received from the Western Australian Branch referring to Subsection 1 (b) (iii) of Section 21 of the *Matrimonial Causes Act*, 1959, dealing with the situation in which either party of a marriage was subject to recurrent attacks of insanity or epilepsy. Reference was made to Press announcements that (i) the Senate had deleted this subsection, (ii) the House of Representatives had accepted the amendment and (iii) the Attorney General had stated in Parliament that he proposed to seek medical opinion on the matter, and if such medical opinion supported information already in his hands, he proposed to reintroduce the amendment in the next Parliamentary Session. It was resolved that the matter be referred to the Branches, and that any necessary action should be left in the hands of the executive officers.

INTERNATIONAL MEDICAL RESEARCH.

At its meeting on September 26, 1959, the Federal Council decided that the matter of international medical research, arising from a document which had been received from Senator H. H. Humphrey of the United States, would be best dealt with by a central body such as the National Health and Medical Research Council. Accordingly the Federal Council representative on that Council, Dr. W. F. Simmons, brought up the matter at the forty-eighth session of the Council. It was then reported by the Chairman of the Council, Dr. A. J. Metcalfe, that the same document had been received by the Commonwealth Health Department, the faculty of medicine of each of the Australian national universities and some research institutes. Dr. Metcalfe had replied to the effect that the National Health and Medical Research Council would be pleased to accept and allocate any funds made available for medical research, and the General Secretary stated that Senator Humphrey had since been advised of the position.

NATIONAL MARRIAGE GUIDANCE COUNCIL.

A copy of the annual report of the National Marriage Guidance Council for the period from July 1, 1958, to June 30, 1959, was received.

ACHIEVEMENTS OF NEW AUSTRALIANS.

The General Secretary referred to a letter which had been received from the Australian Broadcasting Commission requesting data on achievements of New Australians in the fields of science, art, literature or the professions for use in a feature programme dealing with the achievements of New Australians and the way in which they were becoming integrated into the Australian community. The request had been referred to the Branches.

TAXATION ALLOWANCES FOR STUDENT CHILDREN.

At its meeting in September, 1959, the Federal Council resolved that an approach should be made to the Federal Treasurer requesting extension of the period during which student children were eligible for taxation allowances to cover the period while they were attending a university course. The General Secretary reported that the matter had been referred to the Federal Treasurer, who, in reply, had stated that the matter had been considered by the Government prior to the introduction of the recent budget, but in view of its general financial position the Government had decided that taxation concessions should be limited to those which had been announced in the budget speech. However, the matter had been noted for further consideration when the taxation legislation was next under review.

INSURANCE OF MEDICAL PRACTITIONERS ON DUTY FLIGHTS.

At its meeting in September, 1959, the Federal Council resolved to approach the Life Offices of Australia about the possibility of waiving the standard clause in insurance policies restricting cover to recognized air lines in respect of duty flights for medical practitioners. The General Secretary reported that a letter had been received from the Life Offices' Association for Australasia in which it was stated that most life insurance policies did not contain an aviation condition, and, in the case of many policies which did contain that condition, the condition was no longer operative or would not be possible in the circumstances described. Those comments applied to standard life policies and not to accident benefits or in certain cases to temporary life insurances, which normally contained operative aviation conditions. The letter had further stated that as the practice of individual member offices varied, it was recommended that any members of the British Medical Association likely to engage in the flying described should examine their policies and, if the policy contained an aviation condition which appeared to be applicable, the member should refer to the life office concerned to ascertain if the condition was still operative or was applicable, and if it was so, the terms upon which it could be suspended or waived in respect of such flying.

TITLING OF DENTISTS IN TASMANIA AS "DOCTOR".

At its meeting in September, 1959, the Federal Council expressed the view that it did not approve of dentists, other than those holding a doctorate degree, titling themselves "doctor". The General Secretary reported that subsequently a further letter had been received from the Tasmanian Branch in which it was advised that for the time being no action would be taken in regard to an amendment to the *Medical Act in Tasmania to prohibit* dentists using the term "doctor". The Tasmanian Branch of the Australian Dental Association had undertaken not to use the title "doctor", and the Branch Council had decided not to pursue the matter further at present.

TRANSMISSION THROUGH THE POST OF RESTRICTED DRUGS.

As the result of a request from the Queensland Branch the Federal Council at its meeting in March, 1959, resolved to approach the Postmaster-General's Department in regard to the dangers of sending restricted drugs through the post in unsealed envelopes and asking him to have the practice prevented. The General Secretary reported that as a result of this approach the Postmaster-General's Department had advised that departmental conditions concerning the packing of such items had been amended. Details were supplied of the revised Postal Rule 30, which set out the conditions governing the packing of liquids, powders, tablets and similar articles when sent through the post. The opinion was expressed that if those conditions were observed by drug manufacturers and others who sent restricted drugs and similar substances through the post, the dangerous practices referred to by the Federal Council should not persist. The department had further advised that it would circularize all the main drug distributors drawing the revised postal rule to their attention and requesting cooperation in preventing the possibility of repetition of the unfortunate incidents which had happened. The Federal Council was of the opinion that the action taken was satisfactory.

FRANK H. ROWE MEMORIAL FELLOWSHIP.

At its meeting in March, 1959, the Federal Council appointed Dr. Leigh T. Wedlick as its representative on a selection panel to choose a candidate for study abroad in the field of rehabilitation in terms of the Frank H. Rowe Memorial Fellowship for Post-Graduate Training in Physical Medicine and Rehabilitation. The General Secretary said that Dr. Wedlick subsequently notified the Federal Council that Dr. D. A. Dowie of South Australia had been awarded the Fellowship and would travel to the United States in 1960 to undertake training in the Department of Physical Medicine and Rehabilitation, New York University.

AIR TRANSPORT OF COUNTRY PATIENTS TO HOSPITAL.

At its meeting in September, 1959, the Federal Council resolved to approach the various airlines with a view to obtaining a reduction in charges for air transport of country patients to hospital. Replies were received from Trans-Australia Airlines and Ansett/A.N.A. explaining the attitude of the companies but regretting that they were

unable to make any amendment to the existing fare policy. The General Secretary reported that as a result of a request from the Director of Public Health, Territory of Papua and New Guinea, an approach had been made to Qantas airlines requesting consideration of the problem as it applied to transport of patients from Port Moresby to Sydney. The reply received had indicated that a refund would be made in retrospect where it was found that extra seating occupied by the patient's stretcher would not have been otherwise occupied by sitting passengers. The Federal Council resolved to make a further approach to Trans-Australia Airlines and Ansett/A.N.A. in the matter and to draw the attention of those companies to the policy of Qantas.

KOREAN MEDICAL ASSOCIATION.

The General Secretary referred to a letter that had been received from the Korean Medical Association requesting copies of the memorandum and articles of association and by-laws of the Federal Council and also an exchange of medical journals. He reported that the copies of the memorandum and articles and by-laws had been sent as requested, and an exchange arrangement had been entered into by the Editor of THE MEDICAL JOURNAL OF AUSTRALIA.

AUSTRALASIAN MEDICAL CONGRESS (B.M.A.).

Eleventh Session, Adelaide, 1962.

Copies were received from the President of the Eleventh Session of the Australasian Medical Congress (B.M.A.), to be held in Adelaide, 1962, of the minutes of the first and second meetings of the Executive Committee.

A letter was received from the Queensland Branch in support of a resolution, passed by the Council of the Australian College of General Practitioners, to the effect that in the opinion of the Council the Australasian Medical Congress (B.M.A.) should incorporate more plenary sessions and that the panel of speakers should include a general practitioner. The New South Wales and Victorian Branches also forwarded copies of a similar request received from the respective State Faculties of the Australian College of General Practitioners. The Federal Council resolved that the resolution of the Council of the Australian College of General Practitioners should be forwarded to the Executive Committee of the Congress for any action deemed necessary.

At the request of the Executive Committee of the Congress, the Honorary Treasurer was authorized to make the sum of £500 available to the Executive Committee for preliminary expenses.

FORMATION OF A NEW MEDICAL ASSOCIATION OF AUSTRALIA.

The Federal Council at its meeting in September, 1959, resolved that in its opinion the time was opportune to proceed with the formation of an Australian Medical Association, independent of, but affiliated with, the British Medical Association. It was further resolved that this opinion be forwarded to the Branches with a request that the views of members be obtained, and that the Executive be empowered, prior to the next meeting of the Federal Council, to formulate detailed proposals concerning the constitution and machinery of an Australian Medical Association. The General Secretary reported that in each case the six Branches had expressed support for the formation of the new association. In Tasmania there had been general approval of the Federal Council's resolution as such. In New South Wales there had been general approval from local association and special groups with only very minor qualifications. In Western Australia there had been approval, but it was suggested that the name of the Association should be the Medical Association of Australia. It was reported from Queensland that circulars had been sent to 1341 members, of whom 332 had replied: 309 had agreed with the suggestion, 15 had disagreed, two were undecided and the replies of six were informal. In South Australia there had been general approval from the local associations, the metropolitan groups and the specialist groups; the Council also had made a number of constructive and detailed suggestions relating to the name and constitution of the new association. In Victoria, a resolution of approval had been passed by Branch Convocation, and the Branch Council had subsequently approved Convocation's resolution. In the light of these replies the Federal Council resolved that it would now proceed with the formation of an Australian Medical Association.

A general discussion then took place regarding the constitution of the proposed new association including a consideration of the possible relationship to it of the Colleges and other associations of medical practitioners in Australia. After a general interchange of views the Federal Council resolved to appoint a committee to consider ways and means of forming an Australian Medical Association, to consult the Association's legal advisers and to produce a draft constitution for submission to and consideration by the Federal Council at its next meeting, if possible. It was further resolved that the committee so set up should be a steering committee with authority to have discussions with the Branches of the British Medical Association in Australia, and with any other medical bodies which in the opinion of the committee should be consulted, and that the draft constitution to be produced should be a skeleton draft for consideration by the Federal Council. It was decided that the steering committee should consist of the New South Wales Branch representatives—namely, Dr. A. J. Murray, Dr. W. F. Simmons, Dr. R. H. Macdonald and Dr. E. F. Thomson, with the President, Dr. H. C. Colville, and the General Secretary, Dr. J. G. Hunter, *ex officio*.

MEDICAL ASSOCIATION IN TERRITORY OF PAPUA AND NEW GUINEA.

The General Secretary said that he had received a letter from the Director of Public Health of the Territory of Papua and New Guinea, advising of the desire of medical practitioners in the Territory to form a Branch of the British Medical Association, but it had been advised that it would be more suitable if the formation of an association could be delayed to coincide with the formation of the new Australian association.

Information was supplied to the Federal Council of a medical school which was being established in Port Moresby to train assistant medical officers for work in Papua and surrounding territories including Dutch New Guinea.

VISIT OF THE MINISTER FOR HEALTH.

During the course of the meeting a visit was paid by the Minister for Health, Dr. Donald A. Cameron, who explained certain aspects of the new legislation for provision of pharmaceutical benefits and replied to various questions and criticisms.

NATIONAL HEALTH SERVICE.

Pensioner Medical Service.

Provision of Surgical Aid to Invalid Pensioners.

A letter was received from the South Australian Branch referring to the fact that medical practitioners were often approached by invalid pensioners who asked where they could obtain assistance to enable them to procure artificial limbs or other surgical aids. It appeared that those items were requested more by pensioners living in country districts, as in the metropolitan area there was usually some means of obtaining the lesser items through almoner branches or voluntary societies. It was recommended that consideration be given to making appropriate recommendations with a view to finding some means of providing such surgical aids within the provisions of the pensioner medical service. After discussion the Federal Council decided to take no action in the matter.

Pharmaceutical Benefits.

It was advised (i) that phenylbutazone was to be restored to the list of pharmaceutical benefits available under the Pensioner Medical Service, and (ii) that the proposed alteration had been made in the maximum quantity and number of allowable repeats in the prescription of miotic eye drops in accordance with the recommendation of the Ophthalmological Society of Australia (B.M.A.).

Agreement with Commonwealth Government.

The General Secretary referred to the fact that the term of the current agreement, made by the Federal Council with the Government on behalf of the medical practitioners participating in the Pensioner Medical Service, would expire on June 30, 1960. The matter had been referred to the Branches, and in each case the Branch was willing that the agreement should be renewed, but suggested that an increase in fees should be sought from the Government. The Federal Council resolved that an approach should be made to the Minister for Health requesting that the fees payable to the medical practitioners for attendance on pensioners should be increased as follows: surgery consultation from 11s. to 14s.; domiciliary visit from 13s. to 17s. 6d.

General Pharmaceutical Benefits.

Extension of Pharmaceutical Benefits.

A full discussion took place on the extension of the Pharmaceutical Benefits Scheme brought about in an amendment to the *National Health Act* in October, 1959, and it was evident that there was dissatisfaction with the extended scheme in all Branches. There was particular

dissatisfaction with the fact that the profession had not been adequately consulted about the details and that full information about the scheme had not become available until a short time before it was to come into force.

Reference was made to a letter from the Victorian Branch in which the opinion was expressed that the commencement of the scheme should be postponed for two months after the terms and conditions were known so that there would be adequate time for the profession to study them before it was committed. This proposal for a postponement of the scheme received support from all the other Branch Councils. However, in response to an approach by the President of the Federal Council, the Minister for Health stated that the Government was unable to agree to a postponement.

At the meeting of the Federal Council proposals were put forward by both the Queensland and the New South Wales Branches recommending that the medical profession should not cooperate with the Government in the extended scheme. These resolutions, however, were not supported by the representatives of the other Branches, and the Federal Council finally resolved that, whilst taking the strongest exception to the action of the Government, in failing to consult the medical profession in the alterations to the Pharmaceutical Benefits Scheme, and to give the profession adequate time to consider the proposed alterations, it advised members of the British Medical Association to write all prescriptions in the form prescribed in the *National Health Act*. It further resolved that this resolution should be reviewed at the next meeting of the Federal Council. The following official statement, a copy of which was to be transmitted to the Minister for Health, was approved:

> The Federal Council of the British Medical Association at its meeting on 26th February considered the recent alterations to the National Health Act relating to Pharmaceutical Benefits.
>
> At its previous meeting in September, 1959, the Council had protested to the Minister for Health against the action of the Government in framing the amendments to the Act without any prior reference to the medical profession, whose advice and assistance might have been of great value to the Government and were readily available, as has been the case since the initiation of the National Health Service. Further, the details of the proposals had not been made available to the practising profession until a few days before their implementation, and a reasonable and justifiable request to the Minister to postpone the inception of the Scheme to a date later than 1st March, in order that doctors might familiarize themselves with the new conditions, had been refused.
>
> In spite of this the Federal Council, having regard to the public interest, decided to recommend to members of the British Medical Association that they conform to the procedures laid down in the altered Pharmaceutical Benefits arrangements.
>
> There are still many anomalies and imperfections in these arrangements and the Federal Council will continue its efforts to have them rectified. After having observed the working of the Scheme for six months the Council, at its next meeting, will review the whole position in the light of the interests of both the medical profession and the public.
>
> In any future amendments or extensions of the National Health Act in which the medical profession is directly or indirectly concerned unless it has been consulted and fully informed prior to its implementation the Government cannot necessarily expect the profession to co-operate.

Government Prescription Forms.

A letter was received from the Victorian Branch drawing attention to the fact that some members of the Association in Victoria had been using prescription forms supplied by the Commonwealth Health Department for the prescribing of pharmaceutical benefits and requesting Federal Council's policy on the practice. The Council decided that in view of the historical significance of Government forms in the profession's fight against nationalization in the 1940's, and in view of possible implications in the future, the profession should be advised that such a practice was undesirable.

Pharmaceutical Benefits Advisory Committee.

A recommendation was received from the Victorian Branch Council that the Federal Council should take measures to obtain official representation on the Pharmaceutical Benefits Advisory Committee. After discussion the Federal Council decided to take no action on the matter.

Medical Benefits.

Anomalies in the Schedule.

At its meeting in September, 1959, the Federal Council resolved that the Minister for Health be informed that the Federal Council was of the opinion that there were still some gross anomalies existing in the schedule of benefits under the Medical Benefits Scheme and that he be requested to give further consideration to the correction of those anomalies. It was further resolved that in the event of the Minister for Health being unwilling to further amend the Commonwealth Schedule of Benefits under the Medical Benefits Scheme, it be represented to him that the further correction of anomalies would become a matter for the registered medical benefits organizations and that his department should not disapprove moves made by those organizations to achieve that purpose. During the Minister's visit at the meeting he gave assurance that he would be prepared to consider further a very limited number of existing gross anomalies in the schedule, as long as the correction of such anomalies would not involve a great deal of "arithmetic'. The Committee on Anomalies then met and compiled a short list of such gross anomalies, the list being approved by the Federal Council. The list of anomalies with a copy of the resolutions of the Federal Council was then forwarded to the Minister. The General Secretary reported that the Minister, in his reply, had advised that a number of proposals had been accepted, while others had been accepted in a modified form. The alterations which had been accepted had been incorporated in the amendments to the *National Health Act*. The Minister had pointed out that the provisions of the increased benefits, provided for in the new Act as from January 1, 1960, would prove to be of considerable value to persons who had to undergo major surgery and represented an important step forward in the Government's national health scheme. Commenting on the second resolution of the Federal Council the Minister pointed out that the Commonwealth was always prepared to give careful consideration to proposals submitted by registered medical benefit organizations in the light of the provisions of the *National Health Act* and the policy adopted in relation to the medical benefits scheme.

The General Secretary referred to additional lists of anomalies that had been prepared by various scientific bodies, which lists would be considered by the Federal Council when the matter of anomalies was next raised with the Minister.

The General Secretary also reported that The Royal Australasian College of Physicians had expressed dissatisfaction with the answer of the Minister and the Federal Council relating to proposed amendments to items 2 and 4 in the schedule and had notified the Federal Council that the College intended to make an independent approach to to the Minister. After further correspondence the College had invited the President of the Federal Council or a deputy to join a delegation to the Minister for Health. It was reported that Dr. W. F. Simmons had joined the delegation as the Federal Council representative, but the delegation had not achieved its object.

Specialist Surgeons.

At its meeting in September, 1959, the Federal Council considered a letter from the President of the Royal Australasian College of Surgeons which set out the College's definition of a specialist surgeon and referred to the intention of the College of establishing a register of trained surgeons. The Federal Council then confirmed the definition of a specialist that it had adopted in 1954 and subsequently amended in 1957, and decided to invite the College to confer with representatives of the Federal Council in an endeavour to arrive at a definition of a specialist surgeon mutually satisfactory to both parties and also to discuss the proposed register.

On November 18, 1959, a conference was held in Melbourne between representatives of the College and the Federal Council, and as a result of this meeting the College representatives indicated that the whole subject would be given consideration at the next meeting of the College council. The College would then communicate with the Federal Council and with The Royal Australasian College of Physicians, informing them of the College's attitude on the subject and inviting comment. A subsequent letter from the College advised that the Council of the College had abandoned the use of the term "specialist surgeon" and had adopted and defined the term "approved

surgeon". The Council proposed to establish a register of approved surgeons. The register was at present a domestic record. Applications for admission to the register would be invited by advertisement of the proposal in THE MEDICAL JOURNAL OF AUSTRALIA.

On December 10, 1959, a meeting of executive officers of the Federal Council was held in Sydney when a communication received from the New South Wales Branch was considered. This letter referred to a communication received from the New South Wales Department of Health in which it was advised that the President of the Royal Australasian College of Surgeons had written to the Minister for Health for New South Wales in April, 1959, concerning the term "specialist surgeon", and had stated that the Council of the College desired to recommend to the Government the establishment of national State registers of surgical specialists. The College's definition of a surgeon was also set out. The N.S.W. Department of Health in its letter had expressed the opinion that if registration of specialists was to be provided for, then such registration should extend to all recognized specialties and not be confined to specialist surgeons. The Department of Health also considered that it should be the duty of the medical boards to decide who should be so registered, and that it would be desirable for all States to adopt a similar policy and to have uniform requirements in regard to the recognition of specialists. The Department sought the views of the New South Wales Branch on the matter. The Branch advised the Department that the matter was being considered by the Federal Council, and that subsequently a conference had been arranged with the Royal Australasian College of Surgeons. More recently the Department of Health had advised the New South Wales Branch that the matter was to be included in the agenda of the conference of State Health Ministers, which was to be held in Sydney in January, 1960. In view of that advice and because of the importance of the matter, the Council of the New South Wales Branch considered that some uniform advice should be available from the profession for submission to the Ministers' conference. It suggested therefore that the Federal Council should request each Branch to advise its health department that it endorsed the Federal Council's definition of a specialist and to ask that the department adopt such a definition. The executive officers of the Federal Council having considered the letter of the New South Wales Branch resolved to uphold the Branch's suggestion and advise all Branches to contact their respective health departments in the terms mentioned.

Committees of Inquiry.

The Federal Council at its meeting in September, 1959, resolved to ask the Minister for Health to investigate the legal position in relation to committees of inquiry in the medical and hospitals benefits schemes and in particular to their powers. The General Secretary reported that the matter had been referred to the Minister for Health, but as yet no definite answer had been received. However, in the meantime a request had been received from the New South Wales Branch that the Commonwealth Minister for Health be requested to give favourable consideration to setting up under the *National Health Act* committees of inquiry into complaints involving doctors or irregularities in rendering accounts and/or describing services under the medical benefits section of the Act, and that where a recommendation on a complaint referred had been approved by the Minister, such decision should be deemed to be the basis of settlement of the claim for benefit. The suggestion of the New South Wales Branch was referred to the other Branches, and after consideration of the replies the Federal Council decided not to adopt the suggestion.

Services Rendered on Behalf of Medical Practitioners.

After reconsideration of the question of medical benefits for services rendered on behalf of medical practitioners, the Federal Council, at its meeting in September, 1959, decided to approach the Minister, expressing its strongest condemnation of the payment of benefits to a patient for services rendered by a person who was not a legally qualified medical practitioner and who was not employed by a legally qualified medical practitioner, and to ask that the *Natinoal Health Act* be amended to preclude such payments. The General Secretary reported that the Minister for Health had stated in his reply that the question had been considered on a number of occasions and had been examined again, but it had been decided not to vary the present arrangement, which had been in operation since the inception of the medical benefits scheme. He went on to say that while it was accordingly not proposed to amend the *National Health Act* along the lines requested by the Council, he would emphasize that Commonwealth benefits were paid in the relevant cases only when the service had been performed at the request of a legally qualified medical practitioner.

Payment of Benefits for Services Performed by Chiropractors.

As the result of a letter received from the Tasmanian Branch, the Federal Council, at its meeting in September, 1959, forwarded a request to the Minister for Health to take action to preclude the payment of medical benefits for services rendered by chiropractors, as was being done by a medical benefits association in Tasmania. In his reply the Minister pointed out that the payment of fund benefit for ancillary services which did not attract Commonwealth medical benefits had always been regarded as a matter of determination by the organization concerned. The Commonwealth accepted proposals from registered organizations to pay such benefits having regard to the financial condition of the fund. That was in line with the policy that there should be the least possible Government interference in the internal administration of registered organizations. In the instance quoted, the Government did not feel justified in refusing to allow the fund to pay the benefit from its own resources, and he therefore regretted that he was unable to take action as suggested by the Federal Council. The Tasmanian delegates reported that the fund concerned was no longer making a feature of its payments to chiropractors, and it was decided to take no further action.

Hospital Benefits.

Benefits for Domiciliary Nursing.

The General Secretary referred to a letter received from the Secretary-General of the Royal Australasian Nursing Federation, requesting the support of the Federal Council in an application being made by the Federation to the Commonwealth Government for the payment of benefits for domiciliary nursing under the *National Health Act*. The matter was referred to the Branches and received support from a majority. The Federal Council therefore resolved to advise the Royal Australasian Nursing Federation that it was in agreement with the Federation's reasons for making a further approach to the Federal Government in relation to benefits for domiciliary nursing.

Form H.B. 21.

A letter was received from the Tasmanian Branch requesting the Federal Council to investigate the desirability and implementation of the use of a "code system" for details of illness to be used on form H.B. 21 instead of a specific diagnosis, as quite often patients became aware of a disease the knowledge of which was not to their advantage. After discussion the Federal Council resolved to approach the Director-General of Health with a request to consider amending the form H.B. 21 in the terms suggested by the Tasmanian Branch. It was further resolved that a code system should be used on the medical claim form used by medical benefit organizations.

INTERSTATE TRANSFER OF MEDICAL REGISTRATION.

A letter was received from the Queensland Branch conveying a resolution of the Branch Council in which it was confirmed that a uniform system of medical registration was desirable in Australia and a request to the Federal Council to take further action in the matter. On being referred to the Branches, the idea was in most cases supported in general terms with the qualification that it was not practicable. During the discussion Dr. Simmons referred to the model Acts in relation to radioactive substances and therapeutic substances which had been prepared by the Commonwealth Government, and subsequently introduced by individual States, and suggested that something similar might be done in relation to medical registration. However, after further discussion it was decided not to pursue the matter at present.

HOSPITAL POLICY.

A letter was received from the South Australian Branch forwarding correspondence from the Honorary Secretary of the Honorary Medical Staff at the Royal Adelaide Hospital, and requesting a statement of the Federal Council's policy in regard to the charging of private fees by honorary medical staff for the treatment of workers' compensation and third party insurance patients admitted to public hospitals. The Federal Council, after discussion, saw no reason to alter a resolution passed in March, 1945, in which the opinion was expressed that members of the medical profession should not attend in an honorary

capacity in public wards of public hospitals patients who could afford to pay.

SURGICAL TRAINING FOR GENERAL PRACTITIONERS.

As a sequel to earlier discussions on the question of surgical training for general practitioners the Federal Council at its meeting in September, 1959, resolved to inform Branch councils that it approved of the formation in each State of committees composed of representatives of the British Medical Association, the Australian College of General Practitioners and the Australian Post-Graduate Federation in Medicine to consider the establishment of facilities for surgical training of general practitioners. Subsequently a communication was received from the Honorary Secretary of the Australian College of General Practitioners advising that the College was willing to take the initiative in the formation of the various State committees. The Branches were asked to give the fullest cooperation to the College in the formation of committees and to forward progress reports to the Federal Council. The Queensland Branch subsequently advised that a scheme of the kind envisaged at the conference in Adelaide in September, 1959, was to operate in Queensland in 1960.

POST-GRADUATE EDUCATION.

A letter was received from the President of the Australian Post-Graduate Federation in Medicine enclosing a preliminary notice of the conference on post-graduate medical education to be held in Sydney between August 10 and 13, 1960, under the auspices of the Federation. The hope was expressed that the Federal Council, as an honorary member of the Federation, would send a strong delegation to put forward to the conference the views of the council on education and teaching, including hospital positions and other matters which Council would wish to see advanced throughout Australia. An invitation to attend the conference was extended to the President of the Federal Council and to any other delegate he wished to nominate. The Federal Council resolved that the invitation should be accepted, and that the New South Wales Branch representatives be appointed the delegates of the Federal Council.

BRITISH MEDICAL ASSOCIATION.

Overseas Rate of Subscription.

The General Secretary referred to a letter that had been received from the Secretary of the Parent Body of the British Medical Association asking for official confirmation of the fact that the Branches in Australia would from January 1, 1960, remit the appropriate subscriptions in sterling and reported that all Branches had agreed to this. The letter also referred to the motion submitted to the Annual Representative Meeting in Edinburgh by the Victorian Branch relating to the possibility of altering the articles of association and by-laws to make the reception of the *British Medical Journal* by members optional, and asking that the possibility be explored. It was advised that both the committees concerned held the view that the setting of the monetary value on the Journal as one of the privileges of membership, which was implicit in the motion, would have undesirable repercussions on the whole of the Association's finances, and they were not prepared therefore to make the desired recommendations on the subject. Accordingly it was agreed that there was no further action to be taken on this proposal.

Annual Meeting, 1961, Auckland, New Zealand.

The General Secretary referred to a letter received from the Honorary Joint Secretary of the Biennial Conference of the New Zealand Branch, which was meeting in conjunction with the Annual General Meeting of the British Medical Association in Auckland in February, 1961. The letter asked for the names of possible guest speakers or persons willing to be presidents of the various sections. The draft programme of the conference was also forwarded.

After discussion the Federal Council decided to invite the President, Dr. H. C. Colville, to represent the Council at the meeting.

At its meeting in September, 1959, the Federal Council approved the action of the President in inviting Dr. Wand, the Chairman of the British Medical Association, and members of the Association travelling to New Zealand for the meeting in 1961, to visit Australia. The General Secretary reported that a letter had been received from the Parent Body accepting with pleasure Federal Council's invitation. A further letter advised that the party would prefer to visit Australia after the New Zealand meeting.

Annual General Meeting.

A notice was received of the Annual General Meeting of the British Medical Association to be held in Torquay, England, from June 16 to 24, 1960.

Commonwealth Medical Advisory Bureau.

A letter was received from the Medical Directory of the Commonwealth Medical Advisory Bureau requesting the names of distinguished Australian doctors able to accept the invitation of the Medical Society at Hereford, as a guest of honour at the annual dinner in October, 1960. The matter had been referred to the Branches.

NATIONAL HEALTH AND MEDICAL RESEARCH COUNCIL.

Dr. W. F. Simmons, a representative of the Federal Council on the National Health and Medical Research Council, had forwarded copies of the official report of the forty-seventh session held on May 21, 1959, a personal report of the forty-eighth session held on November 12, 1959, and a report on work done under the *Medical Research Endowment Act* during the year 1958. The Federal Council thanked Dr. Simmons for his excellent report on the forty-eighth session.

COMMONWEALTH HEALTH DEPARTMENT.

The General Secretary referred to the receipt of a report on activities carried out under the Commonwealth *National Fitness Act*, 1941, to a Press statement by the Minister for Health announcing the appointment of Dr. A. J. Metcalfe as Chairman of the standing committee on administration and finance of the executive board of the World Health Organization, to a Press statement by the Prime Minister concerning the "taking over" of the Commonwealth Serum Laboratories by certain overseas drug manufacturers, and to the report of the Director-General of Health for the period from July 1, 1956, to June 30, 1958.

WORLD MEDICAL ASSOCIATION.

Increased Recognition of the Views of Medical Associations by World Health Organizations.

At its meeting in March, 1959, the Federal Council resolved to support the motion to be submitted by the British Medical Association at the thirteenth General Assembly of the World Medical Association regarding the constitution of the World Health Organization, with a view to the establishment of a body more representative of the medical associations of the member countries. It further resolved to make further representations to the Minister for Health that a member of the practising profession in Australia be included in delegations to meetings of the World Health Organization and the International Labour Office. A letter was received from the Secretary-General of the World Medical Association, advising that the British Medical Association's resolution had been adopted by the thirteenth General Assembly. A letter was also received from the South Australian Branch recommending that the objectives of the World Medical Association in this regard be urged by the Federal Council. The Federal Council then resolved to make further representations to the Minister for Health in the terms of the previous decision of March, 1959.

Constitution and By-Laws.

A letter was received from the Secretary-General forwarding notice of by-laws adopted at the thirteenth General Assembly relating to the conducting of discussions at the General Assembly in the three official languages, namely English, French and Spanish, and also in German. A further by-law provided that each elected member of the council appointed by the General Assembly should be eligible for reelection for only one additional three-year term, except in the event of reelection following a casual vacancy appointment of less than two years' duration, in which case the member of council should be eligible for reelection for two full terms of office. Members would retire in rotation.

A letter was received from the Secretary-General forwarding the text of a resolution of the thirteenth General Assembly, concerning the World Medical Association Study Committee set up to investigate the future objects and administrative affairs of W.M.A. A letter was also received from the Secretary of the British Medical Association in London, advising that the Association was preparing a memorandum on the matter and expressing hope that the Federal Council would also submit recommendation to the W.M.A. Study Committee. The Federal Council discussed the matter and appointed a committee consisting of Dr.

A. J. Murray, Dr. L. R. Mallen and Dr. T. G. Swinburne to draw up a report on the future activities of the World Medical Association for submission to the next meeting of the Federal Council.

Fourteenth General Assembly, Berlin, Germany, September 16-21, 1960.

It was noted that the fourteenth General Assembly of the World Medical Association was to be held in Berlin from September 16 to 21, 1960. The Federal Council, by ballot, appointed the General Secretary, Dr. J. G. Hunter, as delegate and Dr. A. E. Lee as second delegate to the Assembly.

A letter was received from the Secretary-General of the World Medical Association asking for suggestions regarding films suitable for inclusion at a session on post-graduate teaching films during the assembly.

Universal Fingerprinting of Medical Practitioners.

At its meeting in March, 1959, the Federal Council referred to the World Medical Association the question of universal fingerprinting of medical practitioners. The Secretary-General replied, advising that the proposal had been considered at the thirteenth General Assembly and elicited considerable discussion. The Assembly adopted the proposal, as outlined, to be on a voluntary basis on the part of each member association. After further discussion the Federal Council decided to recommend to the Branches that they approach the State authorities requesting that the fingerprinting of medical practitioners be carried out on registration.

Second World Conference on Medical Education.

A letter was received from the Chairman of the Programme Committee of the Second World Conference on Medical Education and from the Secretary-General expressing appreciation of the donation of a second amount of £250 contributed by the Federal Council towards the cost of the second World Conference on Medical Education held in Chicago from August 30 to September 4, 1959.

A letter was also received from the Secretary-General advising of the publication of the proceedings of the Conference and requesting orders for the proceedings at a pre-publication cost.

Protective Emblem for Civilian Doctors and Medical Units.

The Secretary reported on correspondence that had taken place with the Secretary-General of the World Medical Association and with the Australian Red Cross Society relating to the International Code of Medical Ethics in Wartime and the protective emblem for civilian doctors and medical units. The outcome of the discussions which the Society is to have with the Prime Minister is still awaited.

Central Repository for Medical Credentials.

The General Secretary reported that he had received inquiries from two doctors regarding the Central Repository for Medical Credentials.

Supporting Committee.

A letter was received from the Secretary-General expressing appreciation of the generous financial assistance given by the W.M.A. supporting committees in Australia.

A financial statement of the supporting committees was presented showing a credit balance of £4562 as at February 25, 1960. It was noted that contributions of the Branches for 1959 were £1446 from New South Wales, £288 from South Australia, £92 from Queensland, £39 from Tasmania, and one guinea from Western Australia.

MONOGRAPH FUND.

The Honorary Treasurer presented a financial statement for the Medical Monograph Fund for the year ended December 31, 1959.

At the meeting of the Federal Council in September, 1959, it was decided that the title of the Federal Council Medical Monograph Fund should be altered to the Mervyn Archdall Medical Monograph Fund. The General Secretary reported that the matter had been referred to the Federal Council's legal adviser and that it was now all in order. The Federal Council gave the necessary authority for the affixing of seal of the Federal Council to the deed of trust of the Mervyn Archdall Medical Monograph Fund.

REPATRIATION DEPARTMENT.

Repatriation Central Medical Advisory Committee.

Correspondence was read between the President of The Royal Australasian College of Physicians and the President of the Federal Council relating to the report in THE MEDICAL JOURNAL OF AUSTRALIA of November 14, 1959, on the establishment of a Repatriation Central Medical Advisory Committee, the outcome of a series of negotiations initiated by The Royal Australasian College of Physicians and involving the Federal Council and the Royal Australasian College of Surgeons as well as the Repatriation Department. The President of The Royal Australasian College of Physicians had questioned the accuracy of the report as it appeared, but the matter had been cleared up after correspondence with the President of the Federal Council and the Editor of the Journal. The President of The Royal Australasian College of Physicians had expressed the wish of the College to continue to make a contribution to the welfare of the profession through friendly cooperation.

Treatment of Ex-Service Amputees.

At its meeting in September, 1959, the Federal Council decided to advise the Chairman of the Repatriation Commission that the Federal Council was of the opinion that the subject of the treatment of ex-service amputees was a suitable matter for consideration by the Central Medical Advisory Committee. The Chairman of the Repatriation Commission, in his reply, had agreed that it would be useful for the Medical Advisory Committee to give some consideration to the present position in the matter, although a great deal had already been done to develop the service; he had asked the Principal Medical Officer of his Department to arrange it.

The question of the standard of artificial limbs supplied was then raised by delegates from the smaller States, who pointed out that the standard of limbs supplied by the Repatriation Department in their States was still unsatisfactory. The Federal Council, after discussion, resolved to ask the Chairman of the Repatriation Commission to take steps to remedy the position.

Form M.F. 9a (Revised) 1957.

At its meeting in March, 1959, the Federal Council decided to approach the Chairman of the Repatriation Commission to ask that the fee for completion of form M.F. 9a (Revised) 1957 be increased from £1 11s. 6d. to £2 2s. The General Secretary reported that the Chairman of the Repatriation Commission had notified that approval had been given to this increase and that immediate effect would be given to the decision.

Form M.F. 12 (Supply of Clinical Notes).

The General Secretary reported that the Queensland Branch had expressed the opinion in a letter that the fee of one guinea for supply of clinical notes was inadequate. The matter was referred to the other Branches, but only one Branch agreed with the Queensland Branch. The Federal Council resolved to take no action in the matter.

Specialists' Reports.

The General Secretary then referred to a letter from the Queensland Branch in which the Branch Council submitted for the consideration of the Federal Council a recommendation that Repatriation Specialists' Reports should be typewritten, as many practitioners had found handwritten reports unreadable. The Federal Council resolved to ask the Repatriation Commission to arrange for all specialists' reports to be typewritten as this was already being done in some of the States.

Radiological and Pathological Reports.

At its meeting in September, 1959, the Federal Council decided to make representations to the Repatriation Department with a view to its not being incumbent on local medical officers, where Repatriation Department facilities were not readily available, to obtain permission from the State Repatriation Department before obtaining radiological and pathological examinations of repatriation patients. The General Secretary reported that the matter had been referred to the Repatriation Department, which had asked for further details. The matter had been referred back to the Queensland Branch and was being looked into.

British Ministry of Pensions and National Insurance.

The General Secretary reported that, as a result of representations made by the Federal Council in 1959, the Chairman of the Repatriation Commission had advised that approval had been received from the Ministry of Pensions and National Insurance in Great Britain for payment of a fee of one guinea for supply of a copy of clinical notes in connexion with claims for benefits in respect of British ex-service personnel resident in Australia. This amendment would permit a uniform fee to be paid for this information by both the British authorities and the Repatriation Department in Australia. The Chairman had also mentioned that the Ministry in Britain had decided to discontinue the form M.P.A.O. 38 in Australia as the form was considered unsuitable for use outside the United Kingdom.

Supply of Clinical Notes.

The General Secretary reported that the Ophthalmological Society of Australia (B.M.A.) had asked the Federal Council to recommend to the Repatriation Department that the current fee of one guinea paid by the Department to medical practitioners for the supply of clinical notes be increased to two guineas. After discussion the Federal Council decided to take no action in the matter. It was considered that the present fee was adequate. As the matter of supplying clinical notes had already been considered (see reference to Form M.F. 12 above), the Council decided that no increase in fee was warranted.

DEPARTMENT OF SOCIAL SERVICES.

Sessional Fees Paid to General Practitioners.

At its meeting in September, 1959, the Federal Council decided to approach the Department of Social Services stating that the fees payable to general practitioners for services rendered on behalf of the Department should be three guineas for the first hour and one guinea for each subsequent half hour or part thereof. It further resolved to inform the Department that if the Federal Council's submission was not accepted the Federal Council would have no alternative but to advise members of the Association not to provide services on behalf of the Department. The General Secretary reported that the matter was still being considered.

Form S.R. 6.

A letter was received from the Queensland Branch expressing the view that the present fees of two guineas for examination of a patient and completion of Form S.R. 6 for general practitioners and three guineas for specialists were inadequate and should be three and five guineas. During the discussion it was pointed out that the form was more impressive in its appearance than was the information which was actually required. The Federal Council therefore resolved to request the Department of Social Services to simplify the form.

REHABILITATION.

A further discussion took place on the question of rehabilitation and on the report of the Federal Council on the subject which had been presented to the Departments of Health, Social Services, and Labour and National Service. The Federal Council decided to draw the attention of the Minister for Health again to the report and to ask him whether the Government had yet been asked to take any action in the matter.

DEPARTMENT OF LABOUR AND NATIONAL SERVICE.

Sessional Fees for General Practitioners.

At its meeting in September, 1959, the Federal Council resolved to request the Department of Labour and National Service to raise to three guineas for the first hour and one guinea for each additional half hour the fee payable to general practitioners when attending as members of medical boards or when conducting medical examinations for appointment to or enlistment in the forces, or when engaged on other similar duties. The General Secretary reported that the Secretary to the Department had advised that the Department of the Treasury was unable to agree to the increase requested. It was pointed out in a subsequent discussion that, as there was no more national service, the matter was no longer relevant.

AUSTRALIAN COUNCIL OF SOCIAL SERVICE.

A letter was received from the Executive Officer of the Australian Council of Social Service forwarding the notice, agenda and minutes of the seventh Executive Meeting of the Council held in October, 1959, and also the minutes of a meeting of the Planning Committee for the first National Conference on Social Welfare, which was to be held in Melbourne in May, 1960. A letter was also noted from the Conference Planning Committee extending an invitation to the General Secretary, Dr. J. G. Hunter, to occupy the chair at an evening session during the conference related to "Deficiencies and Gaps in Social Services".

The work of the Australian Council of Social Service was discussed by the Federal Council, which expressed its appreciation for the work of the General Secretary, Dr. J. G. Hunter, in the establishment of this council.

Annual Subscription.

A letter of thanks was received from the Chairman of the Australian Council of Social Services acknowledging the receipt of the Federal Council's annual subscription of £100.

Research Project into Social Problems of Widows with Dependent Children.

The General Secretary referred to the research project into the social problems of widows with dependent children in an Australian community which is being undertaken by the New South Wales Council of Social Services. A letter was received from the Chairman of the Australian Council of Social Services acknowledging with thanks a cheque for £25 contributed by the Federal Council towards the cost of this project.

AUSTRALIAN ROAD SAFETY COUNCIL.

Senate Select Committee on Road Safety.

The General Secretary reported that he had been invited to appear before the Senate Select Committee on Road Safety and that he had prepared a document on the general medical aspects of accident prevention. The Federal Council resolved that the General Secretary be empowered to appear before the Committee as the representative of the Federal Council and that the document prepared by him be used as the basis of his evidence as representing the general views of the Federal Council.

Blood Tests for Intoxication.

Dr. E. F. Thomson, in response to a previous request by the Federal Council, reported on the question of blood tests for intoxication. He submitted, amongst other things, the results of discussions held with Dr. L. E. Norman, Chief Medical Officer of London Transport, during his visit to Sydney in October, 1959. Dr. Norman had agreed with the general views of the Federal Council, in that it was not the responsibility of a body such as the Federal Council to decide on the question of compulsion in relation to blood tests, that the results of such tests were variable, and that they should be carried out only by those who were experienced in them and who carried them out regularly. The Federal Council thanked Dr. Thomson for his report.

WORKERS' COMPENSATION ACTS.

Treatment of Commonwealth Government Employees.

The General Secretary referred to correspondence that had been carried on with the Commonwealth Employees Compensation Commission in relation to the treatment of Commonwealth Government employees as compensation patients in private hospitals. This had arisen from instances quoted from two States, in which doctors had been requested to provide an explanation why a private hospital rather than a public one had been used for the treatment of Commonwealth Government employees who had been treated under compensation. The Federal Council had stated to the Commissioner that, so far as it understood the matter, the selection of an institution to which a compensation patient was sent for treatment was a matter of mutual arrangement between the patient and the practitioner concerned. The Commissioner in his reply had stated that, whilst there was not an agreement between the Commonwealth and the medical profession, it had not been considered that the Commonwealth was without interest in the hospital charges. Indeed the Hospitals and Charities Commission had raised the subject of uniform charge (irrespective of the section in the hospital in which the patient was accommodated) with the Commissioner, and it was hoped to reach early finality on the subject.

The Federal Council resolved to make a further approach to the Commissioner drawing attention to the fact that the Federal Council was particularly concerned with the

question of payment to medical practitioners in private practice for services rendered to injured Commonwealth Government employees.

Schedule of Fees for Medical Practitioners.

A letter was received from the Tasmanian Branch forwarding a schedule of fees as agreed to by the British Medical Association and the Fire and Accident Underwriters' Association of Tasmania, operative from February 3, 1960. The Federal Council expressed the view that, in view of the extension of the scope of workers' compensation to cover almost all illness, there should be no weekly limitation of fees and that all fees should bear a reasonable relation to those currently charged in private practice.

COMMONWEALTH PUBLIC SERVICE.

Fees for Medical Referees.

A letter was received from the Queensland Branch expressing the opinion that the fee of four guineas for Commonwealth Medical Referees should be increased to at least five guineas. The matter was referred to the Branches for their opinions, but subsequently the Queensland Branch advised that the fees referred to had been increased and that their original complaint was no longer operative. A circular issued to medical referees from the Department of the Treasury appeared to cover the matter satisfactorily.

SHIPS' SURGEONS.

The General Secretary reported that a further application had been made to the Australasian Steamship Owners' Federation for revision of the existing salary scale for ships' surgeons up to a basic rate of £2000 *per annum* plus fees from patients. A reply had been received from the Federation advising of a decision to increase the scale to £1200 *per annum*.

THE ROYAL BIRTH.

The President reported that he had sent a congratulatory cable to Her Majesty Queen Elizabeth II on the royal birth. The Federal Council confirmed the President's action.

VOTES OF THANKS.

The thanks of the Federal Council were extended to the Council of the Victorian Branch for its hospitality and for the use of its offices, and to Dr. and Mrs. H. C. Colville, Dr. and Mrs. J. G. Johnson and Dr. and Mrs. T. G. Swinburne for their hospitality. The thanks of the meeting were extended to the President, Dr. H. C. Colville, for presiding and to Dr. J. G. Hunter, Dr. C. J. Ross-Smith and Miss H. Cameron for their services during the meeting.

DATE AND PLACE OF NEXT MEETING.

It was decided that the next meeting of the Federal Council would be held in Adelaide in October, 1960.

Out of the Past.

ST. VINCENT'S HOSPITAL, SYDNEY.[1]

[From the *Australasian Medical Gazette*, May, 1899.]

THE Forty first annual report of this estimable charity is published.

The pamphlet shows that the work of the hospital is increasing. There were remaining in hospital on December 31st, 1897, 108: admitted during the year 1557: total 1665. Of this number there were cured, 1083: relieved, 373: unrelieved, 16: deaths, 83: remaining in hospital December 31st, 1898, 110. Rate of mortality over all cases under treatment 5·3 per cent. The mortality amongst typhoid fever cases of whom 24 were treated was 3·8 per cent. There was an increase of 129 inpatients over the record of the preceding year's return. In the outpatient department there were 7644 patients treated, their attendances numbering 22,757: and in this department the figures show an excess of 3165 over those of 1897. There were 763 operations during the year, with 20 deaths. The number of hydatid cases operated on was 10: the number of cases treated was 14, viz., hydatid of liver 9, of breast 1, of neck 1, of lung 1, of mesentery 1, of omentum 1.

[1] From the original in the Mitchell Library, Sydney.

Recently a deputation from the staff of the hospital waited on the New South Wales Colonial Secretary, with a view to obtaining a grant of £2,000 for the erection of a new and up-to-date operating theatre. The request of the deputation was favourably received by the representative of the Government who promised to place the matter before his colleagues.

Obituary.

JOHN RUDOLPH SERGIUS LAHZ.

WE are indebted to Dr. Michael Gallagher for the following account of the career of the late Dr. John Rudolph Sergius Lahz.

Suaviter in modo, fortiter in re. Thus did John Rudolph Sergius Lahz live his life. He was born on August 25, 1900, at Calcifer, near Chillagoe, in North Queensland, not far from the neighbouring town of Ravenswood, the birthplace of another great Queenslander and outstanding Australian surgeon, the late Sir John McKelvey. Coincidently, both these surgeons had somewhat similar early academic careers. Both, after a State school primary education, topped Queensland in the senior public school examination, each being *dux* of his respective college—McKelvey the Townsville Grammar School, and Lahz Nudgee College, Brisbane. Later, the younger Lahz was to come under the influence of the older McKelvey in Sydney, first as a medical student and later as a resident medical officer at St. Vincent's Hospital.

John Lahz commenced his secondary school education at Nudgee College, Brisbane, in 1914. All went well during that first year, but in the Christmas holidays tragedy overtook him. While holidaying in Bathurst, New South Wales, he was involved in a motor-car accident and fractured the shaft of his left femur. The bone threatened to unite with shortening, and he was taken to Sydney, where the fracture was openly reduced and internally fixed. Unfortunately, sepsis supervened and brought with it most of its horrible sequelæ. The bone finally united, with three inches of shortening and chronic osteomyelitis. Thenceforward he was subject to recurrent "flare-ups", both local and general, and on at least two occasions nearly perished from septicæmia.

Under such adversity did he resume his secondary education and undertake his life's work. However, from his earliest years it was obvious that John Lahz was endowed with intellectual gifts well above the average. Added to this he had what are perhaps even more important essentials for success—an insatiable desire and quest for knowledge and an infinite capacity for hard work. He was, indeed, a student in every sense of the word, and this great gift remained with him undiminished throughout his life. So outstanding were these qualities in him, and such an impression did he make on his teachers at Nudgee College, that his reputation as the model student remained as an example through the years. Twenty years later, when his own two sons and I myself were students there, he was still extolled by our teachers as the paragon for us all to emulate. His answers in science examinations had been preserved and proudly exhibited to successive generations of students as models of perfection. Nor were his activities confined to the academic side; he participated in most sports, though, because of his disability, he was not outstanding in any except, strangely enough, Rugby Union, in which he did represent his school. This may be considered no mean achievement, when it is recalled that Nudgee College enjoyed a reputation for success in Rugby Union unrivalled amongst the Great Public Schools of Queensland.

On leaving Nudgee College in 1918, he was enrolled at the University of Queensland, where he completed one year of the B.Sc. course. As there was no medical course in Queensland, he proceeded to the University of Sydney and graduated with honours, in 1924, as McKelvey had done in 1905. On completion of his term as a resident medical officer at St. Vincent's Hospital, Sydney, he did locum tenens work for a time, interspersed with periods of illness from his chronic osteomyelitis.

After about a year's general practice in Goomeri, Queensland, he finally settled in Logan Road, South Brisbane, where he remained until 1935. He soon built up a very large practice, but not too large to prevent him from developing his chosen specialty—orthopædic

surgery—at the same time. In 1931 he was appointed assistant orthopædic surgeon to the Mater Children's Hospital, Brisbane, where the late A. V. Meehan was orthopædic surgeon. Thus began a mutually beneficial association between these two great men, an association which remained unbroken until the untimely and tragic death of the latter in December, 1955. It was A. V. Meehan, also, who performed the final operation on Lahz's leg in 1935, the last of over 25 separate surgical procedures to which it had been subjected during twenty years.

While abroad in 1936, Lahz obtained the F.R.C.S. (Edinburgh) diploma, and on his return commenced practice on Wickham Terrace, Brisbane, in general surgery and orthopædics. It was also at this time that the orthopædic department at the Mater Public (Adult) Hospital was established, with A. V. Meehan as orthopædic surgeon and himself as assistant surgeon.

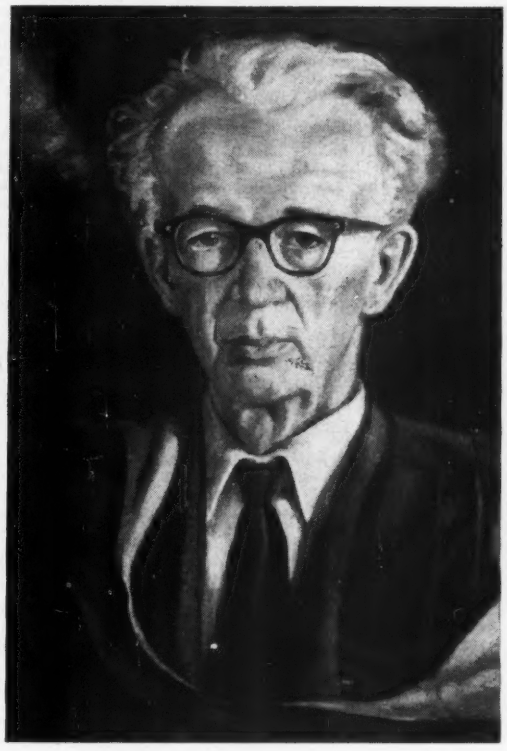
The relinquishing of the duties of general practice meant no respite from work or increase in his leisure; in fact, it meant "leaving off work to carry bricks". From now on, with his senior, he threw himself whole-heartedly into the task of successfully establishing the orthopædic department at the Mater Hospital. Besides the routine of rounds, operating sessions and out-patient work, which became enormous, he was "on call" at all times for all emergencies. In those days the hospitals were not liberally staffed with registrars and residents as they are today. This pressure of honorary duties, together with his large practice, continued until the return of A. F. McSweeny from abroad, in 1949. It was during this pressure period that Lahz developed his extraordinary skill and gained such wide experience in the management of traumatic orthopædic lesions. Meanwhile, his beloved hospitals and their orthopædic departments gained their present high reputation in this field, a reputation which is graciously and gratefully acknowledged by both.

In 1947 he obtained the M.S. degree of the University of Queensland and the F.R.A.C.S. diploma, doing the full examination for each. He was made orthopædic surgeon to both adult and children's sections of the Mater Public Hospitals, Brisbane, on February 6, 1948, which position he held until his death.

In all his work Lahz was thorough, painstaking, gentle and meticulous in every detail. The time of day or night made no difference; nor did his other numerous and heavy commitments, and every procedure was always done with his maximum skill and painstaking care. Quite rightly, he was almost fanatical about asepsis, and this, no doubt, stemmed largely from his own sad personal experience of sepsis. His charm of manner made him easily approachable. His wide knowledge of human nature and sympathetic understanding of its problems, frailties and particularly its sufferings, made him beloved by all, patient and layman alike. He possessed, in the fullest measure, the greatest of all faculties of a doctor; no matter how hopeless the outlook, he never failed to comfort and endeavoured to alleviate. His medical knowledge was never out of date or, perhaps better, was exempt from age, and he tackled every problem from first principles. No empiricism or thoughtless routine for him! Different methods of treatment for apparently similar conditions confounded and irked some who lacked the necessary understanding to appreciate the profundity of his thoughts and knowledge. He was, literally, steeped in the principles of surgery. One of his greatest delights was to propound and demonstrate the principles of Thomas, and many generations of students from the Queensland Medical School will surely remember him gratefully for it and call him blessed. Widely read, a lover of all good literature, with the Pentecostal gift of tongues (he could speak, and write, German, French and Italian with fluency and elegance), Lahz was a wise counsellor, a versatile conversationalist, a popular and witty speaker. Apropos of the last-mentioned quality, many graduate nurses of the Mater Hospital, Brisbane, will remember with pleasure and gratitude his traditional speech on their behalf at their annual graduation speech night. Such were the qualities of Lahz's mind and heart that, no matter what the company, time or place, he was *"toujours chez soi"*. Although gentle by nature and slow to give offence, nonetheless he was firm in his convictions and courageous in their defence. He despised profanity, and if he could not speak well of a colleague or acquaintance he preferred to withhold criticism and gave him the charity of his silence:

> What's done we partly may compute,
> But know not what's resisted.

Besides being a member of the British Medical Association, Lahz was a member of the Australian Orthopædic Association since 1941, from which time he had confined his practice solely to orthopædic surgery. He was president of the latter association 1958-1959, and had vacated that office only a few months before his death. At the University of Queensland he held various positions during his life-time, having been a lecturer in anatomy to



(From the portrait by Mrs. Lincoln Robbins.)

the departments of physiotherapy and of physical education and examiner in anatomy of medical undergraduates, and, at the time of his death, he was lecturer in orthopædic surgery. He was also president of the Queensland branch of the Australian Physiotherapy Association from 1947 to 1954, and from then on until his demise a vice-president. He was federal president from 1949-1950. He fathered the association in its earlier, formative years in this State, contributed largely to the formation of its constitution and spared himself no effort to establish the association on secure and solid foundations.

To his sorrowing widow we extend our sincere sympathy, and also to his children, Mrs. L. Moore, of Melbourne, and Mr. John Lahz and Mr. Colless Lahz of Brisbane. His son John continues his practice in orthopædics in that city. Though John Lahz was aware of his rapid decline in health during the past three years and of its inevitable consequence, he bore it and its accompanying physical discomforts with dignified fortitude, equanimity and resignation. In this he was fortified by the faith of his adoption, for he was a convert to Catholicism by his own conviction. We are all the poorer for his passing, and those forever in his debt are too numerous to name. Men of his calibre are too few amongst us, and one was proud to be included amongst his friends.

> His life was gentle; and the elements
> So mix'd in him that Nature might stand up
> And say to all the World "This was a man!".

DR. ANTHONY MCSWEENY writes: On Christmas morning, 1959, John Rudolph Sergius Lahz, immediate past-president of the Australian Orthopædic Association, died at the age of 59 years. He received his secondary education at

Nudgee College, and in 1918 won first place in the list of Queensland University scholarships. He graduated M.B., Ch.M. with honours from the University of Sydney in 1924, and after a year's residency at St. Vincent's Hospital, Sydney, he took up general practice in Queensland, first at Goomeri and later at South Brisbane. It was here that he came under the influence of the late Arthur Meehan, to whom he became assistant in the newly-formed orthopædic department at the Mater Children's Hospital in 1931. The challenge of orthopædic surgery matched his brilliant and inquiring mind, and in 1936 he took the Edinburgh Fellowship, returning to Brisbane to practise as a surgeon in 1937, and exclusively in orthopædic surgery in 1941 after several years' active service with a casualty clearing station. In the post-war years he acquired, by full examination when in his late forties, the M.S. (Queensland) and the F.R.A.C.S. In 1953 he became the senior orthopædic surgeon of the Mater Public Hospitals.

At this stage ill health, the late result of chronic bone infection, a sequel of internal fixation of a fracture of the left femur at the age of fourteen, began to affect his naturally sturdy physique, and when he narrowly escaped death by shooting in his consulting rooms at the hands of a maniacal patient in 1955 he suffered his first coronary occlusion. With great courage and without complaint, in spite of increasing ill health, he managed to carry on his large consulting practice and hospital duties, still finding time to visit the crippled children's homes and the Spastic Centre.

John was an insatiable reader in several languages, including Italian and German. He had the gift of imparting knowledge gently, and with such persuasion that each one felt singled out for personal tuition. His students flocked to his lectures and asked for more. He integrated the history of medicine into every lecture so well that even the dullest fact took on a romantic hue. As an expert court witness he was very much at home, and enjoyed crossing swords with learned counsel. He liked the best in everything. In art, food and wine he was a connoisseur. When he called the members of his department together, it was always over dinner which he had carefully chosen, and woe betide the unfortunate waiter who pretended a vintage to be other than it was; he was so quietly and sadly rebuked that he could never forget it. Occasionally, having arranged such a dinner, John would fail to arrive, and in one instance was ultimately located in his study deeply engrossed in an old treatise of anatomy. Full of apologies and two hours late, he carried off the evening with his usual charm.

He was tireless in the promotion of asepsis, wearing down the sceptic by logic, example and results. Like so many of the masters of orthopædic surgery, his best work was done with children, to whom he readily endeared himself. No one was surprised to find him arrive to examine, without warning, a small child on a Sunday morning at the Mater Children's Hospital. He would comment that some point was worrying him and he just wanted to check his findings. The passage of time meant nothing to him. He lived and loved his work.

John Lahz was a gifted public speaker and a master of the neatly turned phrase and the apt quotation. He took an interested part in his hospitals' clinical, administrative and social activities, and was a protagonist of the nursing and physiotherapy professions. Within ten days of his death he performed an osteotomy of the hip on a public hospital patient. His mind was alert and penetrating until he went into his last sleep. He died as he wanted, in harness.

Correspondence.

GENERAL PHARMACEUTICAL BENEFITS.

SIR: Not the least of the defects of the new Pharmaceutical Benefits Scheme lies in the necessity for us to read all about it in what is described, not quite in open defiance of the O.E.D., as a "book", otherwise a collection of multicoloured pieces of paper in a plastic rag. However, it is not the "book's" physical infirmities, but its manifestations of underlying psychological disorder which cause most concern. The disorder afflicts those who are presumably incapable of expressing themselves clearly; the defensive mechanism involved is to make a simple piece of communication so complicated that readers are ashamed to admit that they cannot understand it. A well-recognized hazard in any bureaucracy, it has frequently been commented on by shameless peripatetic correspondents who apparently like to parade their intellectual shortcomings before the readers of one of your contemporaries. At the outset, let me say that I am not referring to the mere ignorance which allows a plural noun as the subject of a singular verb (Note 52, page 9) or "maximum quantity and number of repeats" to be plural in Note 53 and singular in Note 54.

As a tangible sign of the more malignant condition, I offer the following ("Commonwealth of Australia: Notes for Medical Practitioners", page 6 [yellow]), from a number of possible examples:

> 36. A chemist to whom a prescription for a pharmaceutical benefits is presented is not entitled to supply the benefit at the Commonwealth expense unless the medical practitioner who writes the prescription—(1) if the medical practitioner in pursuance of Regulation 24, directs in the prescription the supply on the one occasion of a quantity or number of units of a pharmaceutical benefit not exceeding the total quantity or number of units that could be prescribed if he directed a repeated supply endorses the prescription in his own handwriting with the words "Regulation 24" (R.19).

I am not one to quibble about the only comma in this literary monstrosity being placed with deadly accuracy in precisely the wrong place; but I am concerned at the waste of time involved in having to read it several times before getting the hang of it. I have not had the same difficulty with a number of more informative "books" than the present one, nor with a number of authors trying to express more abstruse thoughts than the writer of these "Notes" (why not "Prolegomena" in place of this mundane and wholly inappropriate little monosyllable?). For instance, I can follow quite easily the moving ballad about the stockman, with whom I feel myself very much in sympathy at this moment:

> He plunged into the —— creek,
> The —— horse was —— weak,
> The stockman's face a —— study!
> And though the —— horse was drowned
> The —— rider reached the ground
> Ejaculating, "——?"
> "——!"

—W. T. GOODGE, "The Great Australian Adjective".

A thorough grounding in our Australian literary heritage, of which the above elegant, expressive and simple example forms a part, should be insisted upon before any Government official is permitted to wield a pen in a public place.

Yours, etc.,

QUANTUM VALEAT.

Melbourne,
March 11, 1960.

Post-Scriptum: In stressing Australian literature I do not wish to appear parochial, but some English literature of the nineteenth century is rather too prolix for the purpose. Tom Collins, of course, would be on the restricted list, for pensioners only.—Q.V.

SIR: There seems good reason to believe that the decision of Federal Council to accept the conditions imposed on the medical profession by the *Pharmaceutical Benefits Act*, 1959, in no way represents the attitude of the majority of doctors. Some feel so strongly about what they call "the supine attitude of the Federal Council" that they are contemplating withdrawal from B.M.A. membership—an action only to be deplored as the absolute negation of all that is constructive and helpful. A plebiscite is to be held in New South Wales on the issue, and it would be most interesting to see the results of similar investigation in the other States.

We cannot deny that Federal Council was set a difficult and unenviable task, because we know that the Minister for Health had obdurately withheld information concerning the scheme until the eleventh hour. However, from this very fact it seems reasonable to assume that most members of Council were inadequately prepared for a last-minute stand on the matter.

I have never been able to understand how or why the profession permitted itself to become involved, as a sort of acolyte, in matters which (it seems to me) are essentially the business of the pharmacists and the Government. The prescription of medicinal substances should never have been allowed to come under the influence

of variable Governmental regulation, nor should it be conditioned by pressure from the patient to give them something "on the free".

The time we now must spend leafing through the new Pharmaceutical Benefits book, its already voluminous amendments and/or its proprietary index, to find out what is "free" and what is not, would be far better spent in history-taking or the physical examination of our patients, or in browsing among the pages of a textbook or the latest journal.

The profession must strive to free itself from its unhappy state of subjugation within the present scheme.

I have no doubt that a perfectly satisfactory scheme could be evolved, at pharmacist-Government level, to rebate much of the cost of pharmaceuticals to the individual citizen, nor can I see why such a scheme should not be extended to include the pensioner.

In conclusion, I would like to draw attention to portion of a speech made in Parliament on November 2, 1950, by Sir Earle Page (the then Minister for Health). He is quoted as having said:

> One outstanding fact that has emerged from various schemes of socialisation of medicine is that Government control of medical treatment, especially the handing out of treatment for nothing, does not improve the standards of medical treatment or of national or individual health. In most cases, there has come inevitably, a slow deterioration of the morale of the people and loss of skill by the doctors (especially the general practitioners) through the enormous wastage of time in filling in forms.

Ironical, is it not?

Yours, etc.,

MARGERY SCOTT-YOUNG.

233 Macquarie Street,
Sydney.
March 12, 1960.

SIR: Congratulations to the Commonwealth Department of Health on a vastly improved spring-back plastic cover to the Pharmaceutical Benefits List—but oh, brother, the inside instructions are suitable only for those qualified M.B., LL.B.! Why not cater for those with only the "M.B."?

Yours, etc.,

M.B.

Coogee.
February 28, 1960.

SIR: It is difficult to know which is the most dumbfounding—the new Pharmaceutical Benefits Scheme, the naïveté or weakness of B.M.A. Council in accepting it, or the docility with which we ordinary members have accepted Council's ruling. We are indeed devitalized by bureaucracy and ready for regimentation. If we are to be nationalized we have ourselves to blame.

This new scheme is not a matter of whether cascara or chlorpromazine should be on the prescribing list. It is a political issue and another step nearer to complete government control of medical practitioners. It should have been warning enough that we were not consulted—deliberately not consulted—for four months, and that we were given no details till the eve of the scheme's inception. We were not expected to like it.

The proper course for the Federal Government was to have given time for B.M.A. members to consider its implications; and the proper course for the B.M.A. Council was to withhold approval until this could be done. The Government did no such thing; B.M.A. Council did no such thing—they capitulated at once with but one feeble complaint. Did they know what they were doing?

The Government's sole intention, one supposes, was to impose a five-shilling charge on previously free N.H.S. prescriptions. This may well have been sound practice sociologically and economically, and in any case was a matter for the Government solely. However, it is politically dangerous and vote-costly to charge the general public for something previously free. The blow was to be softened by giving something as well, by extending the range of five-shilling prescriptions "to cover practically all prescriptions written by doctors" (or ministerial words to that effect). This did concern the doctors, so we were not consulted.

In fact, this statement was downright deception. Many of my prescriptions and those of other doctors are proprietary ethicals, and a very large number are not on any list. We are to prescribe to a government formulary. The Federal Government has sidestepped its own responsibility and transferred any possible odium to the doctors. For the functioning of the scheme depends on our cooperation: if we refuse to accept the new formulary, the critical finger will point at us, not at the Government, who imposed the five-shilling levy.

The Government has been guilty of moral cowardice, and it may be that they are guilty also of an attempt to nationalize us eventually. They have passed their responsibility to us; and our Federal Council, either with equal cowardice or with unbelievable naïveté, has accepted it.

We have now been committed to prescribing for everybody on a Government formulary: everyone can now have the old P.M.S. benefits for five shillings. B.M.A. Council must have known that the P.M.S. was a private contract between individual doctors and the Department. It could not be lumped in with the Pharmaceutical Benefits Scheme. Yet now, without any signing of contracts, we have been commanded to extend the same formulary to all persons. And our Council agreed!

Be well warned: if such a complicated and restricted formulary can be imposed overnight, the last and final step—the issuing of voucher books and cards for those not already so covered—is as simple as the final opening of the hangman's trapdoor.

Other valid points have been mentioned in criticism of this new scheme: we agreed only to a formulary of life-saving and expensive drugs; if prescriptions were to be subsidized, a scheme could have been arranged through chemists alone; we are doing the clerical work of the Government for no remuneration; the whole scheme will not in fact save one penny of government funds. They are all true criticisms. But there are two most vital issues, which go beyond these. Firstly, we have been manœuvred into accepting moral responsibility for actions of the Government. It is an untenable position, and our Federal Council should never have allowed us to be there. If the Government wish to charge for free prescriptions, let them do so, but let them not be able to say that there would have been a wider scope of prescriptions if only the doctors had been prepared to write them. Put the responsibility back where it belongs. Secondly, the only thing achieved in this whole scheme will be a further step towards socialization of medical practice. It will not save a penny of public funds; it will merely put our profession next step but one to signing vouchers for all patients.

We ordinary members have now had one month to study this scheme and to see its tricks and snares. Let us tell our Federal Councillors—or their successors—that we do not want it, and let them tell our politicians in Canberra why. Tell them we will not put our necks in a noose to save theirs.

Yours, etc.,

JOHN MCLEOD.

15 The Scarp,
Castlecrag, N.S.W.
March 13, 1960.

SIR: In view of the increased government control over professional activities inherent in the recent extension of general pharmaceutical benefits, and in view of the lack of opportunity to study and criticize details of the new formulary and regulations prior to March 1, Federal Council's decision to advise immediate cooperation by the profession is not only astonishing, but must surely be considered to have been a bad decision.

There are two main grounds for considering the decision wrong. Firstly, it is understood that, contrary to its usual procedure, and due entirely to the lack of time afforded the profession to consider details of the scheme prior to the meeting of Federal Council, the various motions on this subject presented by the six Branch Councils had not been circulated to other Branches prior to the meeting. Motions from two States recommended non-cooperation on general grounds, from one State a rather doubtful method of pseudo-cooperation, and three States submitted motions recommending cooperation. The decision to advise cooperation was eventually carried, but only after prolonged debate. It may well be that, had each Branch had time to express an opinion about the motions submitted by other Branches, the decision may have been quite different.

Surely Federal Council should have given serious consideration to delaying its decision, and to calling another early meeting so that a decision on such an important

matter should not be made without certainty that such decision truly represented the wishes of the profession throughout Australia. Such a decision, of course, would have involved temporary non-cooperation by the profession pending further consideration, but this would have been no surprise to the profession, the Government or the public.

This statement leads me to the second ground for considering Federal Council's decision wrong. Less than two weeks before Federal Council's meeting the President of Federal Council had written to the Minister for Health expressing strong reasons why it would be unreasonable to expect the profession to cooperate as from March 1, and firmly requesting a two months' delay in implementation of the scheme in order to give the profession time to study the details of the new formulary and regulations—at that date not yet available for consideration. In this letter the President virtually stated that unless the Government agreed to a delay, the profession would not cooperate on the due date. In his reply to this letter the Minister politely but firmly refused to delay implementation of the scheme.

To me, Sir, and to many other members of the profession, it is unbelievable that Federal Council should have decided to recommend immediate cooperation by the profession in such circumstances. Surely the proper decision would have been a declaration of temporary non-cooperation pending a further meeting of Federal Council after the profession had had time to consider the details of the scheme. It is to be hoped that the profession in all States will demand a further, early, meeting of Federal Council in order to have the matter reconsidered. This would be quite in keeping with the objections to the scheme expressed by Federal Council itself in its public statement after the meeting, and with its decision to have the matter reviewed in the light of experience at its next meeting. I submit, however, that six months is too long to wait before such reconsideration. To those who believe the whole scheme wrong in principle, and Federal Council's decision wrong, the matter is urgent. The longer we spend in unwilling cooperation, the more difficult will it be to retract.

Yours, etc.,

E. S. STUCKEY.

175 Macquarie Street,
Sydney.
March 14, 1960.

Notes and News.

Victorian Cancer Congress.

In a leading article in the issue of December 5, 1959, attention was drawn to the Victorian Cancer Congress, to be held in Melbourne from August 22 to 25, 1960. We have been asked by the Honorary Secretary of the Congress to make known the fact that registration at the ordinary fee of £2 will close on April 30, 1960; for registrations received after May 1, the fee will be £3. Further information about the Congress may be obtained from the Honorary Secretary, Dr. F. Douglas Stephens, c.o. Anti-Cancer Council of Victoria, 410 Albert Street, East Melbourne, C.1, Victoria.

An Invitation to the Doctors of the World.

The German Medical Association (*Bundesärztekammer*) is extending a warm invitation to every doctor in the world to attend the Fourteenth General Assembly of The World Medical Association and the sixty-third Deutsche Arztetag being convened in West Berlin, Germany, from September 15 to 22, 1960. Doctors interested in receiving the latest details about programme, accommodation and registration are invited to address their requests to Dr. Josef Stockhausen, Haedenkampstrasse 1, Köln-Lindenthal, Germany.

Special features of the first joint annual meetings of The World Medical Association and one of its constituent members include: joint opening and closing plenary sessions with music provided by a philharmonic orchestra; numerous divine services sponsored by the representatives of the world's great religious groups as a prelude to the opening plenary session; an international film programme of post-graduate teaching films, less than 25% of which originate from any one country; a scientific programme devoted to the topic "Youth Health"; an exhibition of German scientific research; a philatelic exhibit with a stamp collection of portraits of famous doctors; the awarding of the Paracelsus Medal, the highest award of the German medical profession, at the closing plenary session.

The keynote of all the planning being done by the German Medical Association is "Friendship through Personal Contacts". Every doctor in the world is personally invited to share in this programme for friendship by attending the meeting.

A New Medical Centre in Melbourne.

Work is about to begin on a modern nine-storey medical centre building at the corner of Albert and Lansdowne Streets, East Melbourne. Specifically designed to meet the basic requirements of the medical profession, it will provide consulting rooms and off-street parking space for 60 doctors and others connected with the profession. It will be ready for occupation early next year.

Civil and Civic Contractors Pty. Ltd. are building the project for Lend Lease Corporation Ltd., which will initially hold all shares in the centre. These shares will be sold to doctors who want to buy the suites and will confer rights of ownership. The shareholders will elect a board of directors of the new company which will own and operate the new building. Suites also will be available on lease on a long-term or short-term basis.

Royal Australasian College of Surgeons.

ADMISSION OF NEW FELLOWS.

THE following, having satisfied the Court of Examiners, were admitted to Fellowship of the Royal Australasian College of Surgeons by the Council on February 19, 1960: John Douglas Aberdeen, Richard Clayton Bennett, John Burcham Binks, Volney Gordon Bulteau, Remo Lawrence Cantamessa, John Lindsay Castle, Thomas Joseph Claffey, Frederick John Collins, Thomas Ian Cope, William James Cumming, Brendan John Dooley, Ronald Gordon Elmslie, John Bernard Fethers, Bruce Walter Fox, John Herbert Greer, Franklin John Gray, Keith Leslie Hayes, Anthony Hugh Taylor Hodgkinson, Roger Selwyn Barrow Hudson, David Stanley Leitch, William Patrick Lennon, Clive Denton Levis, Robin Campbell Wilson Lowe, William Gerald Lucas, Maurice Glen Maguire, William Brian Maguire, Vernon Charles Marshall, Kenneth John Millar, Robert Mervyn Mitchell, Paul Frederick Mountford, James Jayapalan Murugasu, Donald Hugh McClymont, Norman Ludlow Newman, Bernard McCarthy O'Brien, James Henry Pryor, Julien Reich, Robin Geoffrey Rushworth, Barrie Pedder Scrivener, Charles Allan Shearer, Leonard Thomas Stretton, John Gladstone Sweeney, Noel Vincent Sweeney, Christopher Gnanaratnam Thevathasan, Thomas John Thwaite, Peter Cader Tuckfield, James McBride White, Donald Cliffon Wilson, Alexander Sanford Wood.

FACULTY OF ANÆSTHETISTS.

Admission of New Fellows.

THE following, having satisfied the Court of Examiners, were admitted to Fellowship of the Faculty of Anæsthetists of the Royal Australasian College of Surgeons by the Council on February 19, 1960: Vivian George Balmer, Alan Guibal Bradford, Shirley Roy Gairns, John Edward Dennis Lane, John Edmond O'Donnell, Colin Hutson Pryor.

Naval, Military and Air Force.

APPOINTMENTS.

THE following appointments, changes etc., are published in the *Commonwealth of Australia Gazette*, No. 16, of February 25, 1960.

NAVAL FORCES OF THE COMMONWEALTH.

Permanent Naval Forces of the Commonwealth (Sea-Going Forces).

Confirmation in Rank.—Surgeon Lieutenants (for Short Service) (on probation) John Francis Killick, Alan John Lyne and Gorden Chisholm Shirreffs are confirmed in the rank of Surgeon Lieutenant (for Short Service), with seniority in rank of 21st November, 1958, dated 21st November, 1959. Surgeon Lieutenant (for Short Service) (on probation) Victor St. Clair Dudgeon Logan is confirmed in the rank of Surgeon Lieutenant (for Short Service), with seniority in rank of 12th December, 1958, dated 12th December, 1959.

Emergency List.

Transfer to the Retired List.—Surgeon Lieutenant Jack McKenzie Woods is transferred to the Retired List, dated 27th January, 1960.

Citizen Naval Forces of the Commonwealth.

Royal Australian Naval Reserve.

Appointments.—Surgeon Lieutenant-Commander Alastair Arnaud Reid, Royal Naval Reserve, is appointed Surgeon Lieutenant Commander, with seniority in rank of 23rd April, 1959, dated 18th August, 1959. Ian Lumsden McVey is appointed Surgeon Lieutenant, dated 17th September, 1959.

AUSTRALIAN MILITARY FORCES.

Australian Regular Army.

Royal Australian Army Medical Corps (Medical).

3/40148 Captain R. M. Compton is transferred to the Reserve of Officers (Royal Australian Army Medical Corps (Medical)) (Eastern Command), 6th January, 1960.

Citizen Military Forces.

Northern Command.

Royal Australian Army Medical Corps (Medical).—The provisional rank of 1/39131 Captain B. S. Purssey is confirmed.

Eastern Command.

Royal Australian Army Medical Corps (Medical).—2/773619 Captain (provisionally) G. R. Gibson relinquishes the provisional rank of Captain, 4th December, 1959, and is transferred to the Reserve of Officers (Royal Australian Army Medical Corps (Medical)) (Eastern Command) and is granted the honorary rank of Captain, 5th December, 1959. *To be Captain (provisionally), 8th January, 1960*—2/189278 Peter Erne Baume.

Southern Command.

Royal Australian Army Medical Corps (Medical).—To be Colonel, 24th December, 1959.—3/157155 Lieutenant-Colonel (Temporary Colonel) R. S. Lawson. *To be Major (Honorary Lieutenant-Colonel), 23rd September, 1959*—3/159739 Robert Alexander Philp with pay and allowances of Captain (at own request).

Central Command.

Royal Australian Army Medical Corps (Medical).—4/32015 Captain (provisionally) W. D. Proudman ceases to be seconded whilst in the United Kingdom, 6th December, 1959. 4/32015 Captain (provisionally) W. D. Proudman relinquishes the provisional rank of Captain, 6th December, 1959, and is transferred to the Reserve of Officers (Royal Australian Army Medical Corps (Medical)) (Central Command) and is granted the honorary rank of Captain, 7th December, 1959. 4/32062 Captain (provisionally) H. W. Welch relinquishes the provisional rank of Captain, 6th December, 1959, and is transferred to the Reserve of Officers (Royal Australian Army Medical Corps (Medical)) (Central Command) in the honorary rank of Captain, 7th December, 1959. *To be Captain (provisionally), 14th January, 1960*—4/35477 John Naulty Sladdin.

Northern Territory Command.

Royal Australian Army Medical Corps (Medical).—To be Temporary Major, 30th December, 1959—7/3015 Captain (provisionally) R. C. Webb.

DISEASES NOTIFIED IN EACH STATE AND TERRITORY OF AUSTRALIA FOR THE WEEK ENDED FEBRUARY 20, 1960.[1]

Disease.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Northern Territory.	Australian Capital Territory.	Australia.
Acute Rheumatism	..	1	3	..	..	..	..	..	4
Amœbiasis	..	..	..	..	..	..	..	..	..
Ancylostomiasis	1	..	2	..	..	..	4	..	7
Anthrax	1	..	..	..	..	..	..	..	1
Bilharziasis	..	..	..	..	..	..	..	..	..
Brucellosis	2	1(1)	..	..	..	..	..	..	3
Cholera	..	..	..	..	..	..	..	..	..
Chorea (St. Vitus)	..	..	..	..	1	..	..	..	1
Dengue	..	..	..	..	..	..	..	..	..
Diarrhœa (Infantile)	6(5)	7(5)	1(1)	..	2(2)	..	2	..	18
Diphtheria	..	1	..	..	..	..	..	..	1
Dysentery (Bacillary)	..	..	1(1)	2(1)	4(1)	..	5	..	12
Encephalitis	..	..	..	..	..	..	..	..	..
Filariasis	..	..	..	..	..	..	..	..	..
Homologous Serum Jaundice	..	..	..	..	..	..	..	..	..
Hydatid	1	..	..	..	..	..	..	..	1
Infective Hepatitis	66(22)	37(20)	16(8)	7(2)	4(3)	..	1	1	132
Lead Poisoning	..	..	2	..	..	..	..	..	2
Leprosy	..	..	..	..	..	..	..	..	..
Leptospirosis	1	..	3(1)	..	1(1)	..	..	..	5
Malaria	..	..	5(4)	..	..	..	..	..	5
Meningococcal Infection	..	1	..	1	..	..	..	..	2
Ophthalmia	..	..	..	..	..	..	..	..	..
Ornithosis	..	..	..	..	..	..	..	..	..
Paratyphoid	..	..	..	..	..	..	..	..	..
Plague	..	..	..	..	..	..	..	..	..
Poliomyelitis	1(1)	..	..	..	1	1	5	..	8
Puerperal Fever	..	1	..	..	..	..	..	..	1
Rubella	..	13(11)	..	..	5(3)	..	..	..	18
Salmonella Infection	..	..	..	3(2)	2(2)	..	..	..	5
Scarlet Fever	4	..	1(1)	..	1(1)	..	..	..	6
Smallpox	..	..	..	..	..	..	..	..	..
Tetanus	..	..	2(1)	..	..	..	..	..	2
Trachoma	..	..	..	..	1	..	9	..	10
Trichinosis	..	..	..	..	..	..	..	..	..
Tuberculosis	29(13)	22(20)	6(3)	6(5)	5(3)	1	1	..	70
Typhoid Fever	..	..	2(2)	..	..	..	..	..	2
Typhus (Flea-, Mite- and Tick-borne)	..	..	3(1)	..	..	..	..	..	3
Typhus (Louse-borne)	..	..	..	..	..	..	..	..	..
Yellow Fever	..	..	..	..	..	..	..	..	..

[1] Figures in parentheses are those for the metropolitan area.

Reserve Citizen Military Forces.

Royal Australian Army Medical Corps (Medical).

Southern Command.—To be Honorary Captains—Barry Arthur Pointon, 30th June, 1959, James Kenneth George Potts, 6th July, 1959, Aubrey John Moss, 11th July, 1959, Colin Martin Williams, 27th July, 1959, Alan John Kermode, 3rd August, 1959, Eugene Vincent Spangaro, 9th August, 1959, Max Werner Jotkowitz and Ross Grant Macdonald, 31st August, 1959, and Bernard George Clarke, 5th September, 1959.

The following officers are placed upon the Retired List with permission to retain their rank and wear the prescribed uniform, 29th February, 1960.

Central Command.—Lieutenant-Colonel (Honorary Colonel) B. S. Hanson, D.S.O., O.B.E., E.D.

Tasmania Command.—Captain (Honorary Major) C. R. D. Brothers.

Post-Graduate Work.

THE MELBOURNE MEDICAL POST-GRADUATE COMMITTEE.

Symposium on Carcinoma of the Stomach.

THE Melbourne Medical Post-Graduate Committee, in collaboration with the Anti-Cancer Council of Victoria, has arranged a symposium on carcinoma of the stomach, to be held on Saturday, April 2, 1960, in the Public Lecture Theatre, Arts Building, University of Melbourne. All medical practitioners are invited to attend, without fee. The chairman of the symposium will be Sir Albert Coates.

The programme is as follows: 11 a.m., "Physiology in Relation to Gastric Surgery", Professor R. D. Wright; 11.15 a.m., "Pathology", Dr. A. V. Jackson; 11.30 a.m., "Clinical Aspects', Dr. R. R. Andrew; 11.45 a.m., "Radiology", Dr. W. Hare; 12 noon, "Special Investigations: Gastroscopy Test Meal, Stomach Biopsy, Stomach Washings', Dr. W. E. King; 12.15 p.m., "Problem Patients", Dr. L. E. Hurley; 1.30 p.m., "Contraindications to Surgery", Sir William Upjohn; 1.45 p.m., "Surgical Treatment", Mr. Grayton Brown; 2 p.m., "Results of Treatment", Dr. E. V. Keogh.

After the presentation of papers there will be an opportunity for discussion.

To assist in the arrangements, practitioners are requested to notify the Committee of intention to be present. The address of the Melbourne Medical Post-Graduate Committee is 394 Albert Street, East Melbourne. Telephone: FB 2547. Parking for cars will be available in the vicinity of the Arts Building and during the symposium telephone messages may be relayed to the Public Lecture Theatre through FJ 0484.

ST. VINCENT'S HOSPITAL, SYDNEY: GASTRO-ENTEROLOGY UNIT.

THE next meeting of the Gastro-Enteroolgy Unit of St. Vincent's Hospital, Sydney, will be held on Thursday, March 31, at 5.30 p.m. Dr. T. Nash will speak on "The Results of Sphincterotomy". All medical practitioners are invited to attend.

Nominations and Elections.

THE undermentioned have applied for election as members of the South Australian Branch of the British Medical Association, qualifications being M.B., B.S., 1959 (Univ. Adelaide) unless otherwise stated.

Douglas, Robert Matheson, Royal Adelaide Hospital, North Terrace, Adelaide.

Chan, Mary Bernadette Sau Kam, Royal Adelaide Hospital, North Terrace, Adelaide.

Jankus, Algis, 309 North East Road, Hampstead Gardens.

Allen, Philip Wesley, 281 Esplanade, Henley Beach.

Chong, Chee Tsun, Royal Adelaide Hospital, North Terrace, Adelaide.

Pitchon, Leon, 8 Gray Street, Hayhurst.

Reay-Young, Peter Shirly, F.R.C.S., England, M.B., Ch.B., 1952 (Univ. Cambridge), Royal Adelaide Hospital, North Terrace, Adelaide.

Hodgson, Richard Berkeley, M.B., B.S., 1958 (Univ. Adelaide), 5 Newark Road, Torrens Park.

Singh, B. Jagdev, M.B., B.S., 1957 (Univ. Adelaide), 54 Sydenham Road, Norwood.

O'Grady, Kevin John, M.B., B.S., 1957 (Univ. Adelaide), 45 Young Street, Parkside.

Surna, Nemira Ona, M.B., B.S., 1957 (Univ. Adelaide), 10 Creslin Terrace, Camden.

Deaths.

THE following deaths have been announced:

MAYNARD.—Roy Bryant Maynard, on March 10, 1960, at Eltham, Victoria.

BRYAN.—Claude Vivian Joseph Bryan, on March 10, 1960, at Launceston, Tasmania.

Diary for the Month.

MARCH 29.—New South Wales Branch, B.M.A.: Council Quarterly.

MARCH 31.—New South Wales Branch, B.M.A.: Annual Meeting.

MARCH 31.—South Australian Branch, B.M.A.: Scientific Meeting.

APRIL 1.—Queensland Branch, B.M.A.: General Meeting.

APRIL 5.—New South Wales Branch, B.M.A.: Council (Election of Officers).

Medical Appointments: Important Notice.

MEDICAL PRACTITIONERS are requested not to apply for any appointment mentioned below without having first communicated with the Honorary Secretary of the Branch concerned, or with the Medical Secretary of the British Medical Association, Tavistock Square, London, W.C.1.

New South Wales Branch (Medical Secretary, 135 Macquarie Street, Sydney): All contract practice appointments in New South Wales.

South Australian Branch (Honorary Secretary, 80 Brougham Place, North Adelaide): All contract practice appointments in South Australia.

Editorial Notices.

ALL articles submitted for publication in this Journal should be typed with double or treble spacing. Carbon copies should not be sent. Authors are requested to avoid the use of abbreviations, other than those normally used by the Journal, and not to underline either words or phrases.

Authors of papers are asked to state for inclusion in the title their principal qualifications as well as their relevant appointment and/or the unit, hospital or department from which the paper comes.

References to articles and books should be carefully checked. In a reference to an article in a journal the following information should be given: surname of author, initials of author, year, full title of article, name of journal, volume, number of first page of article. In a reference to a book the following information should be given: surname of author, initials of author, year of publication, full title of book, publisher, place of publication, page number (where relevant). The abbreviations used for the titles of journals are those of the list known as "World Medical Periodicals" (published by the World Medical Association). If a reference is made to an abstract of a paper, the name of the original journal, together with that of the journal in which the abstract has appeared, should be given with full date in each instance.

Authors submitting illustrations are asked, if possible, to provide the originals (not photographic copies) of line drawings, graphs and diagrams, and prints from the original negatives of photomicrographs. Authors who are not accustomed to preparing drawings or photographic prints for reproduction are invited to seek the advice of the Editor.

Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary is stated.

All communications should be addressed to the Editor, THE MEDICAL JOURNAL OF AUSTRALIA, The Printing House, Seamer Street, Glebe, New South Wales. (Telephones: MW 2651-2-3.)

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